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The Alberta Journal of Educational Research

Volume XLIV, Number 1, Spring 1998

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A Note from the Editor: Plans for 1998

As we open the 1998 volume of *The Alberta Journal of Educational Research,* I am pleased to announce here some of our plans and changes for the coming year. As in past years, I continue to appreciate the willing and thoughtful assistance of many colleagues who contribute to **ajer** in ways that I note below.

Combined Summer/Fall Issue, 44(2&3): Literacy in the 21st Century
This fully refereed theme issue, co-edited by Grace Malicky and Mary Norton,. will publish a selection of the papers that were presented at a recent conference about literacy and literacy education for all ages, which was sponsored by our Faculty of Education.

Call for Submissions
We are planning a theme issue (Summer, 1999) tentatively titled, "Teacher Educators: Identities, Roles, and Influences on Teacher Education Reform." The guest editor for this issue will be Ardra Cole, who is also one of **ajer**'s consulting editors. Look for the call for submissions, which appears elsewhere in this issue.

Associate Editor
George Buck is now Associate Editor of **ajer**. I am delighted that George has agreed to take responsibility for issues related to computer technology (including our website) and copyright. George is a member of our Faculty who has served for many years as one of **ajer**'s consulting editors.

Consulting Editors
I am happy to welcome four new consulting editors to our group and sorry to say goodbye to one. Tony Bartley of Lakehead University in Ontario, Canada, Bobbi Kerlin of Portland State University, Roberta Mura of Laval University, in Québec, and Jennifer Sumsion of Macquarie University in Sydney, Australia are the additions. They bring enthusiasm and expertise that will complement the energy and commitment of our excellent continuing consulting editors. Our one retiree is Judy Cameron, who is going on sabbatical this year. Special thanks to Judy for her sustained support of **ajer**, first as the editor and since then, as "special advisor" to me and as a reviewer. Fare thee well, Judy!

More Thank You's
I continue to have every reason to be grateful for the efforts of many colleagues, on behalf of **ajer**. Sixty individuals, who are listed following the Contents, completed manuscript reviews for **ajer** in 1997. Without question, the thoughtfulness of those reviews has contributed a good deal to the quality of our published articles. Many authors have expressed their appreciation for the constructive attention that reviewers have given their manuscripts. In addition, I benefit from the skilled assistance of the individuals who take responsibility for various aspects of the technical and administrative work associated with **ajer**. Their names appear on the masthead page, and their company makes my life with **ajer** a pleasure. We welcome your comments on any aspect of **ajer**'s operations.

Beth Young
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Call for Submissions

Teacher Educators: Identities, Roles, and Influences on Teacher Education Reform

Alberta Journal of Educational Research
Theme Issue (Summer, 1999)

Guest Editor: Ardra L. Cole

Faculties of education across Canada, throughout North America, and beyond are, once again, in the throes of teacher education reform. The complexity of this process is exacerbated by the range and diversity of individuals and institutions directly and indirectly involved in teacher education and by the ill-defined nature of the field of teacher education in general. Faculties of education employ full-time faculty as teacher educators; second educators from school boards as adjunct or clinical professors; hire people on contractually limited appointments to serve in a variety of roles; and utilize the services of school-based educators who serve as associate or cooperating teachers for preservice teacher candidates.

- What are the implications of this broad-based involvement for teacher education programs and their reform and for teacher education as a field?
- What are the influences of the multiple and diverse roles, identities, and commitments of those involved in teacher education on teacher education programs and their reform?

The questions noted above will be the focus of the theme issue. Articles will cohere around broad themes related to improving teacher education and addressing the challenges associated with the multiple and diverse identities of teacher educators.

Authors planning to submit a manuscript are encouraged to submit a brief intention statement or abstract (250 words) well in advance of the deadline in order to receive feedback about the appropriateness of the submission for the theme issue. Abstracts, intention statements, or preliminary inquiries should be sent to Ardra Cole by electronic mail at ardracole@oise.utoronto.ca or by facsimile at (416) 926-4749. Deadline for preliminary submissions is June 30, 1998. The usual AJER manuscript guidelines for authors apply. Please refer to guidelines as described in our current volume and submit manuscripts by October 1, 1998 to:

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The Alberta Journal of Educational Research *Vol. XLIV, No. 1, Spring 1998, 1-19*

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and

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The "Crisis" of Confidence in Schools and the Neoconservative Agenda: Diverging Opinions of Corporate Executives and the General Public[1]

We reexamine published national survey results since 1980, and reanalyze results of the Ontario OISE/UT survey for the same period, to answer two basic questions. First, is there a crisis in public support for school systems? Second, is there support for an agenda of fiscal austerity and privatization that is the neoconservative prescription for education? We do not find an impending crisis of public or parental confidence in schools. Confidence and satisfaction ratings express a wave-like pattern over time rather than a secular downward trend. Among corporate executives, however, lack of confidence in schools may have reached crisis proportions. There is, moreover, a consensus among executives on neoconservative policies for fiscal austerity and use of market mechanisms in the school system. This neoconservative agenda finds limited support in the policy preferences of the general public.

Dans cet article, nous réexaminons les résultats des sondages nationaux publiés depuis 1980, et nous analysons de nouveau les résultats du sondage de l'OISE/UT, en Ontario, pour cette même période afin de répondre deux questions de base. La première, existe-t-il une crise de soutient public pour les systèmes scolaires? La deuxième, y a-t-il de l'appui public pour un programme d'austérité fiscal et de privatisation en éducation qui est l'expression de l'ordre du jour néoconservateur? Nous ne décelons aucune crise vis-à-vis la confiance du public ou des parents envers les écoles. Sur un graphique, des cotes de confiance et de satisfaction auraient tendance à être exprimées en courbes d'ondes à période régulière plutôt qu'une simple rectiligne descendante. Il se peut que pour les cadres supérieurs des grandes sociétés, cependant, le manque de confiance envers les écoles ait déjà atteint le niveau de crise. En plus, il existe un consensus d'opinions parmi ceux et celles qui sont responsables de promouvoir des politiques néoconservatrices d'austérité fiscale et d'utilisation de critères du monde des affaires pour déterminer l'efficacité de l'éducation. Cependant, pour le public qui préfère certaines politiques en éducation que d'autres, on retrouve peu d'appuis pour cet de rode du jour néoconservatrice.

Introduction

We address two basic questions: first, is there a crisis in public support for school systems? Second, is there support for an agenda of fiscal austerity and privatization that is the neoconservative prescription for education (as for

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other areas of government activity)? In Ontario the newly appointed Minister of Education in the Harris Conservative government achieved notoriety when a leaked tape revealed him explaining to senior civil servants how an artificially created "crisis" atmosphere was needed to win public acceptance for the Minister's agenda for education. (The Minister, John Snobelen, was "captured" on videotape "saying he would invent a crisis to whip up support for overhauling the system," Brennan, 1995, p. A3). The Minister's views had a sharpness of focus missing from much of the debate about public views on education. His argument essentially linked the creation of a political opening for radical restructuring of the educational system to a purported sudden erosion of popular support for the current educational leadership and current institutional arrangements.

Yet for long-time observers of educational opinion the Minister's quest for a "crisis" must appear somewhat ironic. There has been abundant evidence over a much longer period in both Ontario surveys and other Canadian polls of apparently chronic, widespread popular discontent with the school system. In the 1980s evidence emerged of a sustained decline in public assessments of the school system. To some observers these trends in popular views of education foreshadowed a passage from discontent with schools to a crippling loss of public confidence. The current leadership and institutional arrangements would lose their legitimacy in the eyes of the public; the way would be opened for restructuring and reduced funding. Throughout the 1980s and early 1990s critics of the schools were able to cite poll results showing widespread dissatisfaction with schools, perceptions of declining quality, and apparently low levels of public confidence.

We have, then, two versions of how an emergent crisis in public confidence in schools would be signaled and documented in the polls. The first is a sudden collapse in popular support for schools such as the Minister of Education in Ontario hoped to engineer. The second is a consistent, cumulative decline in confidence that at some point crosses a threshold opening up new political possibilities for the neoconservative agenda. By neoconservative we mean a New Right political position, also confusingly characterized as neoliberal (King, 1987), which argues for: (a) a reduction in the role of the state, particularly with regard to social services, redistribution of income, and equity initiatives; (b) a reduction in government deficits and debt; and (c) a reliance on market mechanisms and competition to make public services more efficient through privatization or by bringing greater competition into the public sphere.

Neoconservative policies have been most strongly and coherently advanced by neoconservative governments, notably the Klein government in Alberta and the Harris government in Ontario. Nevertheless, governments of every political stripe have felt the need to reduce deficits; under slogans such as "reinventing government" there has also been a debate about decentralization and competition that extends beyond the right, regarding, for example, charter schools. However, neoconservatives are distinct in seeking to restrict the social responsibilities of the state in principle, and in favoring deficit reduction over maintaining programs as a moral good (linked to maximizing individual liberty) not simply a practical necessity.

As recent commentators have emphasized (Guppy & Davies, 1997; Loveless, 1997), we have no objective benchmark to indicate when a decline in confidence is sufficient to create a crisis of legitimacy. The decisive evidence, we would argue, must lie in growing public acceptance of alternative policies advanced by critics of the schools. Here we examine the empirical evidence for the appearance of either or both of the above patterns of change in public support for current educational institutions, and for public acceptance of key elements of the neoconservative agenda, reduced funding, and reliance on market mechanisms.

In what follows, however, the strategy of the Minister of Education and Training for Ontario should not be forgotten. Changes in confidence ratings may be neither a necessary nor sufficient condition for policy change. As Ladd, Potter, Basilick, Daniels, and Suszkin (1979) noted, following the passage of Proposition 13 in California:

> While the data generally sustain the view that dissatisfaction with taxes reached a high point in 1978, they do not suggest that some dramatic shift in opinion has occurred recently.... Survey data can never be sufficient to explain a political phenomena like the tax protest that "took off" when California voters passed Proposition 13. How leadership groups perceive the political situation and what positions they offer for public consumption are critical factors in situations of this kind. More than a few political leaders are now *acting* as though public resistance to taxation has stiffened, markedly, and this leadership response is in itself enormously consequential for the "tax revolt"—quite apart from what mass public opinions actually are. (p. 128)

Our Ontario-centered analysis focused on perceptions of the schools and support for change among the general public, parents of schoolchildren, and one of the most influential leadership groups, corporate executives.

The Data Record

A United States researcher, Loveless (1997), recently noted

> Despite the endless rhetorical wars waged by critics and defenders of public schools, wars presumably fought for the heart and soul of the American public, research on public attitudes toward education is confined to a handful of texts and articles. (p. 128)

The Canadian situation is similar. Such survey data as are publicly available (i.e., excluding the growing number of private, subscriber-restricted, and unannounced government polls) typically make only a brief appearance in the media as isolated news reports or as part of an advocacy campaign. Few agencies have accumulated trend data on issues of public confidence and support for schools. Guppy and Davies' (1997) recent reanalysis of trends in public confidence in schools, based on data from the Canadian Institute for Public Opinion (Gallup, 1996) and Decima data archives, is a notable exception. Few studies based on reanalysis of multi-year data have been attempted. In this article we first draw on published findings of national polls to reexamine claims of a downward trend in public confidence in the schools. We then examine trends in the views of the Ontario public through secondary analyses of multi-year data from the biennial OISE/UT Survey of Educational Issues conducted in Ontario since 1978. The OISE/UT survey incorporates both a

general population sample and a special sample of directors and executives of private corporations in Ontario.

What the record shows, we argue, is that among the general public there is neither a sudden collapse nor a secular decline in support for schools. This applies even to groups who have generally been less supportive of schools: notably those in the older age categories and those with lower levels of formal schooling. In contrast, opinion trends among corporate executives provide evidence of a true crisis of confidence in the school system and parallel acceptance of the neoconservative agenda. Levels of discontent increased in the late 1970s and at points in the 1980s. Public confidence declined sharply at the end of the 1980s. However, these trends reversed in the 1990s among the general public. By the mid-1990s, corporate executives have become relatively isolated both in their extreme dissatisfaction with schools and their unwillingness to support spending on education. Although a substantial proportion of the public remains dissatisfied with the schools in the mid-1990s, public support for increased spending on schools has barely been eroded over the last decade of jobless recovery, stagnant personal incomes, and neoconservative rhetoric against government spending. On issues of privatization, corporate executives are of one mind; the public, however, remains divided. Thus a coherent and consistent shift to neoconservative views is largely restricted to executives; the general public is unconvinced that education is in crisis, rejects fiscal austerity as a "solution," and remains divided on the appropriateness of market mechanisms for schools.

Confidence in Canadian Schools: Cycles or Secular Decline

> All told, various questions, whether about schools or education, and about satisfaction or confidence, show quite similar patterns; support for public education among Canadians has declined over the past three decades. Our analysis of new data suggests that public confidence in Canadian education has either continued to dip or has not rebounded to levels of previous decades. (Guppy & Davies, 1997, p. 7)

> The polling trends examined in this paper may trace part of a natural cycle of public favor and disfavor.... If so, education's crisis in public confidence may be largely illusory, the figment of academics' musings and media hyperbole. (Loveless, 1997, p. 139)

In this section we examine the survey record of general public assessments of the school system—confidence, satisfaction, perceptions of changing quality—against the two patterns of purported "crisis" outlined above. We look first at the period up to 1993, which has provided seeming evidence both of a secular decline in public assessments of schooling and, at the end of the period, signs of an imminent collapse in confidence in the public schools. We then examine trends in opinion since 1993. This period has witnessed a striking recovery of confidence levels in the schools. Other indicators have either been stable or showed some improvement in public evaluations of schooling. Evidence that public assessment of schools has not followed a simple linear, downward trend raises issues of what pattern does characterize the evolution of public views over the past two decades or more. In the final part of this section we take a second look at opinion trends since the 1970s.

The Public Opinion Record to 1993: A Gathering Storm?

On February 1, 1993 a Gallup Report was released under the headline "Canadians are losing respect for their institutions" (Bozinoff & Turcotte, 1993). Between 1989 and 1993 confidence ratings in all institutions named in the Gallup question had declined. The drop in support was sharpest for the public schools. In 1989 62% indicated that they had a great deal or quite a lot of confidence in schools compared with 44% in 1993. That confidence ratings in the schools had declined was not unexpected given the magnitude of public criticism of the schools and trend lines on other measures of educational opinion (Guppy & Davies, 1997; Livingstone, Hart, & Davie, 1995). The extent of the decline, if sustained, however, suggested that the legitimacy of current schooling was at serious risk (Guppy & Davies, 1997).

In the record of public opinion up to 1993 the sharp decline in confidence ratings is the most compelling evidence for an imminent approaching crisis of legitimacy in education. Of the trends in general public assessments of the school system (which include satisfaction, ratings of performance, and perceptions of quality) examined both by Livingstone et al. (1995) and by Guppy and Davies (1997), confidence ratings alone show a recent sharp decline. In the case of most other measures, the main period of decline dates back to the early 1980s or even the late 1970s. Levels of satisfaction with schools have been stable nationally since 1978 (Guppy & Davies, 1997; Edwards & Hughes, 1996). Perceptions of quality of current versus own schooling had reached a low point in 1983 and may actually have become slightly more favorable since that year (Guppy & Davies, 1997). The earlier general review by Livingstone et al. (1995) drew attention to the discrepancy in trend lines but did not offer any interpretation. By 1993 there was in fact evidence that declining confidence ratings of the public schools were part of a much broader erosion of public confidence in institutions in general.

The sharp drop in confidence ratings for the public schools between 1989 and 1993 was paralleled by lesser declines in confidence in most other institutions including the churches, the Supreme Court, and House of Commons, as well as private sector organizations including newspapers, large corporations and labor unions (see Figure 1). A similar, generalized erosion of confidence in institutions was being recorded in the US and the United Kingdom over the same period (Livingstone et al., 1995). Thus the decline in confidence in Canadian schools appeared as part of a much broader international social trend.

Livingstone et al. (1995) point out that even in 1993 the public schools were among the most respected institutions, second only to the Supreme Court, and that confidence levels in Canadian schools declined later and remained in the early 1990s somewhat above ratings in both the US and the UK. Similarly, the Canadian Gallup Report for 1994 on confidence in institutions (Gallup Canada, 1994) carried a boldface heading "Public schools most respected" (although noting that confidence remained well below earlier levels). Thus while confidence ratings of schools were in decline, educational institutions continued to enjoy comparatively high levels of confidence compared with other institutions. This amply demonstrates the tactical usefulness of poll data to both critics and supporters of the public schools. Guppy and Davies (1997) also note the comparatively high ratings for schools. They argue, however, that the

decline in confidence ratings for schools over time is more meaningful than the continued relatively high ratings of schools compared with other institutions. If the significance of confidence ratings lies in signaling a potential collapse in the accepted legitimacy of institutions, then it makes sense to give greater weight to changes in ratings rather than relative levels of confidence.

Finally, there was scattered evidence that declining public confidence was accompanied by public perceptions that the quality of education was eroding. An Angus Reid poll documented a sharp increase (35% to 46%) from 1986 to 1993 in the proportion of Canadians who thought that the quality of the public schools had worsened in the past 25 years (Angus Reid/Southam News, 1993). In Ontario the OISE/UT Survey found that the proportion of the public who saw a deterioration in high school education compared with 10 years ago had grown from 30% to 46% between 1990 and 1992 (Livingstone et al., 1995). National Gallup Polls, however, failed to record either any increase in public dissatisfaction with schools or increasing perceptions of declining quality when compared with the education that respondents' themselves received (Gallup Canada, 1994). Moreover, the OISE/UT Survey, after documenting a decline in satisfaction with Ontario schools from 1982 to 1988, indicated signs of recovery in 1990 (Livingstone, Hart, & Davie, 1991).

The Watershed: 1993 and After

As it turned out, 1993 was a watershed year in Canada. Public confidence in the schools first stabilized and then improved in the next four years (Edwards & Hughes, 1997). By 1997 confidence levels had reached those seen in the mid-1980s (55% in 1997, compared with 54% in 1979 and 56% in 1984). Although there can be little question that public confidence in the schools declined sharply between 1989 and 1993, the depth of the trough in 1993 in part reflects the exceptional peak in confidence ratings in 1989. Confidence in other institutions, including the churches, the Supreme Court, newspapers, large corpora-

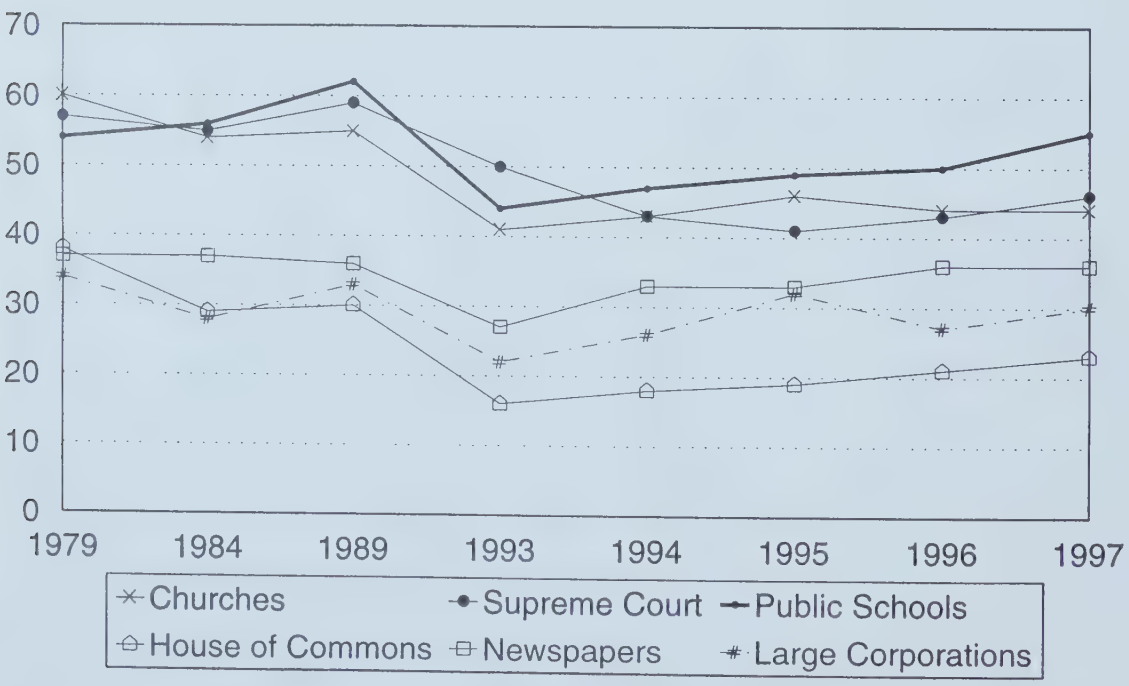


Figure 1. Confidence in Canadian Institutions (%great deal/quite a lot), Gallup Poll, May 14, 1997.

tions and labor unions also stabilized and showed weaker signs of improvement (see Figure 1). In the US confidence in institutions, including the public schools, also stabilized (Gallup, 1996; McAneny, 1996).

Canadian Gallup polls recorded a modest increase (35% to 40%) from 1992 to 1996 in the proportion of the public satisfied with the education children were currently receiving (Edwards & Hughes, 1996a). In Ontario the OISE/UT Surveys confirmed the recovery of satisfaction with schools to levels found at the beginning of the 1980s (Livingstone, Hart, & Davie, 1997). This represented a substantial increase between 1988 and 1996 in the proportion of the public indicating they were satisfied with the school system in general (36-50%). Perceptions of the quality of high school education also recovered. As the 1990s draw to a close, it can still be claimed that substantial proportions of the public have only modest levels of confidence in the schools, that many are dissatisfied and see a continuing decline in the quality of education. What cannot be said on the evidence is that the trends in confidence, satisfaction, and perceptions of changing quality are downward.

Taking the Longer View

Loveless (1997) in reviewing trends in confidence ratings in US institutions finds

> three distinct waves of public confidence in the public school system: eroding confidence levels in the 1970s and early 1980s; an upward move in the mid-1980s; and a resumption of decline from 1987 into the 1990s.... Schools were not alone in losing public trust during the 1970s, 1980s and 1990s. We can see ... that other institutions exhibit a three-wave pattern similar to schools. (pp. 132-135)

The phrase "resumption of decline" with reference to the pattern since 1987 is somewhat misleading. A graph of confidence ratings for the public schools between the early 1980s and mid-1990s more closely approximates the "pig in the python" shape than that of a figure imported from a game of *Snakes and Ladders*. The proportions of the American public with a great deal or quite a lot of confidence in schools are similar in the early 1980s and the mid-1990s. Moreover, opinion appears to have stabilized, at least temporarily, at this level (Gallup, 1996; McAneny, 1996).

In Canada we see a somewhat different pattern of waves. Relatively high (and rising) confidence levels in the 1980s end in a sharp downturn at the end of the decade. From this low point, confidence ratings improve through the 1990s. The proportion of Canadians with a great deal or quite a lot of confidence in public schools is virtually identical in 1997 and 1984.

To sketch out these patterns is in no way to explain them. Guppy and Davies (1997) offer a number of possible explanations for a decline in confidence ratings: demographic change, generalized erosion of confidence in societal institutions, growth of a culture of cynicism, displacement of frustrations with the economy to schools, and public awareness of actual poor performance by schools. They explicitly test only the demographic hypothesis and find shifts in the population have relatively little explanatory value.

Regarding the relationship between economic performance and confidence ratings, it is worth noting that the period of sharp decline in confidence ratings from 1989 to 1993 coincides with a severe economic downturn. The annual

unemployment rate in 1989 was 7.5%; by 1993 it stood at 11.2% (Statistics Canada, 1995). However, there was no corresponding decline in confidence ratings during the previous downturn from 1982-1984.

Loveless (1997), framing the problem in terms of explaining cycles or waves in US confidence ratings, looks for parallel phenomena, noting "the remarkably similar pattern for Scholastic Aptitude Test (SAT) results until 1991, mirroring the three waves of public confidence in education." However, "from 1991 to 1995, SAT scores improved while sentiments continued to sour" (p. 132). Loveless also looks at discontent with government and other social institutions and depictions of education in the media. He brings a further dimension to the problem in drawing attention to the discrepancies between patterns of confidence ratings and patterns of actual behavior. In particular, he notes that since the early 1980s private school enrollments in the US have declined significantly as these schools have lost ground to public systems (Loveless, 1997). Guppy and Davies (1997) counter that declining private school enrollment in the US had mainly been due to erosion of Catholic school systems. They note that in Canada both private school enrollment and political pressure for school choice have grown in recent years (Guppy & Davies, 1997, footnotes 6 and 8).

It is evident that efforts to explain shifts in public confidence are at an early stage. It is not even clear, for example, that national trends ought to be the initial focus of attention. It may well be that public attitudes toward schooling are formed on the basis of more local referents, in particular, their provincial or state educational systems. Attempts to relate public support for schools to government policies and their consequences in federal systems like Canada and the US should focus initially at the provincial or state level. In the next section we examine trends in general public assessments of the school system in relation to developments in public policy preferences in key areas, notably spending and restructuring, in one province, Ontario. Our purpose here is not to provide explanations, but as in the previous section to delineate more clearly what are in fact the attitudinal patterns that need to be explained, as well as to examine the extent to which these views are shared by different social groups.

Confidence and Public Policy Preferences: Patterns in Ontario

In this section we examine the relationship between trends in general assessments of schools and the evolution of policy preferences. In addition to the general public as a whole, we profile the attitudes of two groups whose spokespersons have been prominent in the public and media debates over education: parents with children in the schools and corporate executives. With the exception of confidence ratings, all survey results presented in this section are drawn from the OISE/UT biennial survey of educational issues, either the general population survey or the supplementary survey of corporate executives conducted in each administration.[2]

Confidence, Satisfaction, and Perceptions of Changing Quality

All regions of Canada experienced broadly similar changes in confidence ratings from 1989 to 1997. In each case we see similar patterns of decline and subsequent recovery (see Table 1). What varies, however, is the depth of the trough and the height of the succeeding recovery. Quebec is notable for the shallowness of the dip, particularly in contrast to neighboring Ontario. The Ontario pattern shows a decline a little greater than the national average and a

Table 1
Confidence in Public Schools by Region, Selected Years

Region	*1984*	*1989*	*1993*	*1997*
		% "a great deal" or "quite a lot"		
Atlantic Canada	68	64	48	59
Quebec	43	59	54	62
Ontario	61	64	40	52
Prairies	61	67	42	57
British Columbia	49	57	32	41
Canada	56	62	44	55

Source: Tabulations provided by Gallup Canada.

recovery that is somewhat less complete. Confidence ratings in Ontario do not regain their 1989 peak and as yet remain below levels in 1984.

The OISE/UT survey has tracked levels of satisfaction with the school system in general since 1980. Satisfaction levels are comparatively high in the early 1980s, but decline sharply in the later half of the decade before recovering in the early 1990s (see Table 2). Changes in satisfaction levels appear to lead trends in confidence; satisfaction levels both decline ahead of confidence ratings and recover earlier. Views of parents parallel those of the general public; however, at all stages parents remain somewhat more satisfied than the public as a whole.

Perceptions of changes in the quality of high school education compared with 10 years ago follow a different, simpler pattern (see Table 3). The proportion of the Ontario public who thought that the schools had deteriorated over the past 10 years actually declined somewhat in the early 1980s. There has been little change in perceptions since that time. Views of parents are similar to those of the public as a whole.

The record of general public opinion and of parental opinion in Ontario over the past decade and a half does not reveal a consistent secular trend toward loss of confidence in the public schools. There are patterns of decline and recovery in confidence ratings similar to those we have seen nationally. The relatively sharp declines in confidence and satisfaction in the mid to late 1980s were short-lived. It is important to note that both confidence ratings and levels of satisfaction remain below their peaks in the 1980s. It is not clear, however, whether the current wave of improvement has itself peaked (much less about to reverse itself). In other words, there is little evidence of a sustained threat to the legitimacy of the public school among the public as a whole or parents in particular.

Corporate executive spokespersons have been particularly strong critics of the schools; trends in corporate executive opinion do suggest an undermining of their support for schools. No confidence ratings are available for corporate executives. However, satisfaction ratings reveal a sharp divergence of views of executives from those of parents and the general public. In all years executives were less satisfied than the public as a whole. After 1988, however, differences

Table 2
"How satisfied are you with the current situation in Ontario elementary and high schools with regard to the school system in general?" % Satisfied

Year	*Total Sample*[1] %	*Parents* %	*Corporate Executives*[2] %
1980	50	61	37
1982	56	67	37
1986	43	53	29
1988	37	46	18
1990	49	57	20
1996	50	58	22
Sample sizes	1,000-1,106	308-507	110-138

[1]Excludes special sample of corporate executives.
[2]Based on a special mail survey.

widened considerably; satisfaction levels recover among the general public and parents (Table 2) but not among executives. By 1996 half of the public, over half of parents, but only one in five corporate executives indicated that they were satisfied with the school system in general. In the case of perceptions of changing quality, executive opinion has been largely stable throughout the 1980s and early 1990s. However, over the period, executives were consistently more likely than the public or parents to think the quality of high school education was deteriorating (see Table 2).

The wide gulf between the views of corporate executives and the general public becomes even more evident when we compare this with differences among groups *within* the general public. There are divisions of opinion among

Table 3
"Overall would you say that the quality of education received by students in Ontario high schools has improved, remained the same or deteriorated?" % indicating Deteriorated

Year	*Total Sample* %	*Parents* %	*Corporate Executives* %
1976[1]	46	NA	NA
1979	42	38	NA
1984	36	36	50
1988	39	39	48
1990	37	32	54
1994	35	35	54
Sample sizes	1,011-1,070	353-419	110-122

NA = not available.
[1]Source: Ontario Ministry of Colleges and Universities/Ministry of Education (1976).

social groups within the general population on issues that distinguish the public as a whole from corporate executives. The most consistent differences are by age. (Livingstone et al., 1997). In general, if parallels to the views of corporate executives are to be found within the general public, we must look to polar groups most alienated from the educational system. The most numerically significant of these polar groups comprises those over age 65. It is in fact only among this age group that we find levels of dissatisfaction comparable to that of corporate executives. (A majority of corporate executives in our samples are 35-54.) In 1996, among the general public, only a quarter of those over 65 were satisfied with the school system. The figure was 40% for those 55-64, over half of those in all younger age groups.

Policy Preferences

We argue above that the political importance of declining confidence ratings in institutions should be measured in terms of corresponding growth in new policy preferences. In the current political context the issue is whether erosion in confidence in the public schools is associated with increasing support for the neoconservative policy agenda: spending cuts, deficit reduction, and privatization. Given the patterns in confidence ratings outlined above, two more specific questions can be asked. First, are there fluctuations in support for neoconservative policies in education that are linked to the decline and then recovery of public confidence ratings and satisfaction with schools? Second, are policy preferences of corporate executives distinct from those of the general public, reflecting differences in general assessments of the school system?

Money Matters

The hallmark of neoconservative policy is deficit reduction through sharp cuts in public spending. That spending can be reduced without impacting on services is much claimed and little believed. The OISE/UT survey has tracked spending preferences for education since 1980. Public support for increased spending on education in Ontario grew substantially in the 1980s (see Table 4) peaking in 1988 when 60% supported increased government funding for elementary and secondary schools. Support for higher funding levels increased at the same time as satisfaction with schools was in decline. After 1988 there is a dropoff in support for higher funding; however, about half continue to support increased spending from 1990 to 1996, well above the level found in the early 1980s. Through the 1980s and 1990s most of those who did not favor a real increase in spending wanted funding levels to "keep up with inflation." Fewer than 15% in any year have wanted to see an actual decrease in spending for elementary and high schools.

The post-1988 decline in support for increased spending on elementary and high schools coincided with the sharp drop in confidence ratings; however, although confidence ratings have since improved, support for increased spending has been largely stable. Views of parents follow a similar pattern to the above; however, in most years higher proportions of parents than the public as a whole support increased spending for public schools. Finally, it should be noted that national Gallup poll results show high, stable support for increased spending on elementary and high schools throughout the 1986-1996 period (Edwards & Hughes, 1996a).[3]

Table 4
"What would you like to see happen to government spending for elementary and secondary schools in the next budget year?" % indicating Increase

Year	Total Sample %	Parents %	Corporate Executives %
1980	38	40	15
1982	37	35	15
1984	44	51	18
1986	49	60	15
1988	60	68	43
1990	49	62	34
1992	55	55	25
1994	54	63	17
1996	49	56	19
Sample sizes	1,000-1,106	308-507	95-138

There are sharp differences between views of corporate executives and the general public over funding. The record of executive support for increased spending on elementary and high schools resembles the "pig in the python" (see Table 4). Before 1988 a small stable minority (15-18%) of executives supported higher spending. In contrast, support for increased school funding was growing among the general public and parents throughout this period. In 1988, the minority of executives favoring more spending on schools temporarily became much larger (43%).[4] This apparent convergence between public and executives' views was short-lived. Public support for increased spending on schools experienced only modest declines in the early 1990s. Among corporate executives, however, support ebbed quickly, returning by 1994 to levels found at the beginning of the 1980s. In 1996 almost half (48%) of corporate executives favored a decrease in spending on elementary and secondary schools, a higher proportion than found in the early 1980s.

The resistance of corporate executives to educational spending outstrips differences among major social groups within the general public. Historically, the sharpest divisions within the public over educational spending have been associated with age and with educational attainment (Hart & Livingstone, 1993). In 1996 those 18-24 were more than twice as likely to support increased spending on elementary and high schools as those 65 and older. However, even among the older age group a third favored real increased spending and a further 38% wanted spending to be maintained. Differences in spending preferences by educational attainment are not substantial in 1996.

Questions on spending preferences can be seen as providing a "soft" option for increased government funding as respondents are under no constraint to decide where the money should come from. The same charge cannot be made about questions dealing with taxation. The "tax revolt" and other signs of popular resistance to government spending have in the US represented the most potent sign of declining public confidence. In the 1960s and 1970s the increasing failure of school bond issues was a major concern (Smith, 1982).

Table 5
"Would you be willing to pay more taxes in support of education in Ontario?"
% indicating Yes

Year	*Total Sample* %	*Parents* %	*Corporate Executives* %
1988	45	51	42
1990	49	54	25
1994	50	54	14
1996	51	54	22
Sample sizes	1,000-1,070	308-403	95-122

More recently the idea of referendums limiting taxing powers of government (as in the case of Proposition 13) has been suggested as a general strategy by some neoconservatives. But over the period of declining confidence in schools at the end of the 1980s, the willingness of the general public in Ontario to pay higher taxes in support of education actually increased marginally (see Table 5).

Views of the general public and corporate executives on taxation have diverged since the late 1980s. In 1988 similar proportions of the public and corporate executives indicated a willingness to pay higher taxes in support of education. Among the general public willingness to pay higher taxes increased somewhat between 1988 and 1996. In 1988, the high point of support for increased spending, 45% of the general public indicated that they were willing to pay higher taxes in support of education. Although support for increased spending has decreased somewhat, willingness to pay higher educational taxes has become somewhat more widespread. In 1996 just over half were prepared to accept higher taxes. Over the same period willingness among corporate executives has dropped sharply. Among executives support for increased spending on schools and willingness to pay higher taxes in support of schools have fallen in tandem. The result of these trends is that in 1996 about half the public supported increased spending on schools and about half were willing to pay higher educational taxes; among corporate executives only about one in five supported higher spending or higher taxes. Among corporate executives there is strong evidence of a growing "tax revolt"; this is not the case for the general public. Even among those 65 and older, the age group least supportive of increased spending, a third were willing in 1996 to pay higher taxes for education.

Finally, the economic climate appears to have relatively little impact on attitudes toward spending on education. Between 1988 and 1992 the annual unemployment rate in Ontario rose from 5.0% to 10.9%; it was 9.6% in 1994 and 9.1% in 1996 (Statistics Canada, 1995). Thus, among the general public, support for increased spending on education underwent only modest retrenchment, and willingness to pay higher taxes in support of education actually increased during a severe economic downturn. The increase between 1988 and 1990 in support for increased spending actually predates the worst of the recession. In September 1990, unemployment stood at "only" 6.1%. During the 1982-1984

downturn when unemployment rates reached double digits, public support for increased educational spending had also increased somewhat.

In the case of corporate executives, declining support for higher spending and growing unwillingness to pay higher education taxes coincide with a worsening economic climate over the 1988-1994 period. Corporate views on spending were, however, largely unaffected in the 1982-1984 downturn. This suggests that something more than the recession was needed to produce a sea change in corporate views. The promulgation of neoconservative orientation by corporate spokespersons may have been an important catalyst of attitude change among executives after 1988. The emphasis on reducing the burden of government, eliminating waste in school systems, and promoting greater use of market mechanisms has become prominent in corporate-led public policy initiatives during this period (e.g., Steering Group on Prosperity, 1992).

In view of these patterns, it is not surprising to find that the fiscal priorities of the general public and corporate executives in 1996 are far apart (see Table 6). Among corporate executives there is a strong consensus that the most important task for the current Ontario government is to reduce the deficit. Almost three quarters hold this view. In contrast, only about a quarter of the general public give priority to fighting the deficit. Over half think that the more important task is maintaining health and education services.

The above is not an isolated finding. A national Gallup poll in November 1996 (Edwards & Hughes, 1996b), for example, found that almost half indicated that they were concerned with the size of the federal deficit. However, over 80% opposed reduced spending on health or reduced spending on education (these were separate items) as ways of cutting the deficit. Almost three quarters (73%) favored increasing corporate taxes. This was a higher proportion than supported that perennial favorite, reducing spending on welfare (53%).[5]

Market-Based Initiatives

On other issues associated with the neoconservative agenda, we find the opinions of corporate executives are solidly aligned with the views expressed by their spokespersons. The general public, in contrast, is divided on the issues. Cases in point are privatizing noneducational school services (contracting out) and providing junior kindergarten on a fee-paying basis.

Table 6
"Which of the following do you think should be the most important task for the Ontario government?" (1996)

	Cutting taxes %	*Reducing the deficit* %	*Maintaining education and health services* %	*Other/ Not stated*[1] %	*N*
Total Sample	8	27	56	10	1,000
Parents	7	26	59	8	308
Corporate Executives	7	74	11	9	114

[1]Includes multiple responses.

Table 7
Support for Market-based Initiatives (1996)

	Contracting out nonprofessional services[1] *% agree*	*Parents should be charged fees for junior kindergarten*[2] *% agree*	*Sample size*
Total Sample	51	44	1,000
Parents	47	41	308
Corporate Executives	86	62	114

[1]"School boards in your community should contract with private businesses to provide transportation, janitors and food services for schools rather than having these services provided by school board employees."
[2]"Parents should be charged fees for sending their children to junior kindergarten, the same as they are for child care."

Contracting out of nonprofessional support services such as transportation, food, and janitorial services has become an increasingly common proposal as Ontario boards seek to cut expenditures. This trend is consistent both with the neoconservative position that the private sector is inherently more efficient and with current management theory that organizations should stick to their "core business." It also represents a major challenge to public sector unions. Contracting out of nonprofessional services has been resisted in the name of preserving "good jobs" and the rights of unionized workers. More broadly, opponents have characterized contracting out as the thin edge of the wedge in terms of a growing business influence on how public schools are run.

In 1996 the OISE/UT survey found that contracting out of nonprofessional services is supported by just over half of the general public. This figure is unlikely to reassure those whose jobs are at stake. Yet it is considerably lower than levels found in the US (Elam & Rose, 1996) and lower than would be expected if the province were in fact in the midst of a tax revolt. Among corporate executives with their strong consensus on resisting higher taxes for education, there is strong support for contracting out. Almost 90% are in agreement with this policy.

The application of market mechanisms to the provision of professional educational services constitutes a much more diverse and controversial set of issues. Public funding for private schools and for quasi-private charter schools are two widely discussed options. In many jurisdictions both of these options would require amendments to legislation and occasion a sharp rise in the temperature of debates over educational policy. A lower-profile approach is to accentuate the division between mandatory and nonmandatory educational programs within publicly supported schools, allowing or encouraging the application of user fees for nonmandatory offerings. In Ontario the incoming Progressive Conservative government in 1995 rejected the recommendation of the Royal Commission on Learning for publicly funded early childhood education, confirming that junior kindergarten would remain a nonmandatory program (the previous government had established a timetable for a mandatory,

universal program) with reduced government financial support. Thus junior kindergarten in Ontario became a potential candidate for user fees.

The 1996 OISE/UT survey asked if parents should be charged fees to send their children to junior kindergarten as is done in the case of day care. Just over 40% of the general public and of parents agree with user fees for junior kindergarten. In contrast, a substantial majority of executives would support charging fees. Differences in views of the public and executives on fees appear in large part to reflect differences in commitment to universal accessibility to school board programs for 3- and 4-year-olds in principle. Overall, among both the general public and corporate executives, those who favor the principle of universal access to such programs are less likely to support user fees for junior kindergarten than those who do not favor access. The higher support for user fees among corporate executives largely reflects the fact that executives are much more likely than the general public to oppose universal access to school programs for children from age three to four (62% vs. 34%).

Conclusions

We find little evidence for either of the two patterns that might signal an impending crisis of confidence in schools. Confidence and satisfaction ratings express a wave-like pattern over time rather than a secular downward trend. The single episode where ratings dropped precipitously (1989-1993) was followed by a recovery of confidence that continues to the present. Changes in the attitudes of parents are similar to those of the general public in this regard.

In the case of corporate executives the situation is different. Trends in satisfaction ratings among executives moved relentlessly downward through the late 1980s and remained low in the 1990s. Among executives perceptions of deterioration are widespread and stable. There are thus grounds to consider that lack of confidence in schools may have reached crisis proportions among this politically influential group in contrast to the general public. This view is supported by the consensus of executives on neoconservative policies for fiscal austerity and use of market mechanisms in the school system. Corporate executives are distinguished by the single-minded priority that they give to deficit reduction. Views on education, and in particular educational spending, appear to be largely dictated by their budgetary priorities. Their support of increased spending on schools has fallen precipitously since 1988. Their resistance to paying higher taxes to support education has increased over the same period. Executives are largely united in their support of contracting out, allowing fees to be charged for some school programs. Deficit reduction and use of market mechanisms *are* the corporate agenda whether one turns to the well-articulated views of spokepersons or the opinions of rank-and-file executives.

This neoconservative agenda, however, finds limited support in the policy preferences of the general public, where support for increased spending on education and willingness to pay higher taxes remain widespread. Support for contracting out and for user fees remains well below that evidenced among executives. Whatever the improvements many people would like to see in public education, there is no current crisis in public confidence and general assessments of schools that translates into a consensus for fiscal austerity and privatization policies.

We draw four methodological guidelines from this reanalysis of trends in public support for schools. First, taking the long view is vitally important in setting recent developments in context.[6] Second, it is important to monitor trends in several general measures of public assessments of schools (confidence, satisfaction, quality) in order to evaluate the reliability of movements in any one indicator as evidence of a broad shift in public support. Third, rather than assuming that declining confidence ratings are reflected in shifting public policy preferences, trends in these preferences need to be examined in conjunction with changes in confidence. Fourth, to aid in ensuring that policy changes are responsive to the democratic will, views of powerful subgroups should be monitored for divergences from general trends in public views.

Finally, although our purpose is to document trends in opinions about schools rather than to explain these patterns, two conclusions emerge to guide the work of explanation. First, *changes* in public views of the schools have relatively little to do with *changes* in what is actually happening in schools. If changing views did actually reflect changing school performance, then we would expect that the views of parents, in contact with the schools through their children, would differ from those of the public as a whole. More specifically, we would expect that parental dissatisfaction with schools would lead public opinion as a whole. In fact, parents and nonparents hold similar evaluative opinions about the school system. The views of both parents and nonparents regarding schools in general thus appear to be shaped by more diffuse influences. These may include changing media portrayals of schooling, deterioration or improvements in the economic climate, and personal predilections to respond to particular types of political rhetoric. The fact that age, or more likely generation, is consistently the most important determinant of attitude differences within the general population suggests a particular importance of responsiveness to particular types of political rhetoric based on differing images of schooling. In the case of funding for schools, older people have a strong interest in competing priorities for government spending, notably health care and pensions.

Second, explanations of changes in attitude need to account for the "loose couplings" found in the data. Changes in confidence ratings for different social institutions are not independent of one another, but neither do they move in lock step. This is also the case for changes in attitudes toward schools in different regions. These "loose couplings" suggest the interactions of both broad-based factors (e.g., general economic climate) and factors specific to educational institutions and to localities.

The accumulation of time-series on important dimensions of public attitudes toward schools now makes possible a sustained, empirically based investigation of opinion change. The first task is to develop an accurate characterization of patterns of change, and a good beginning has been made in this regard. The second and much more difficult task is to develop and test well-specified hypotheses about the determinants of attitude change.

Notes

1. This article is based on a presentation to the Canadian Society for the Study of Education Session *Public Expectations and Satisfaction: Attitudes of Graduates, Employers, Parents and the Public Toward Education in Canada*, at the Learned Societies Meetings, St. John's, NF, June 14, 1997.

2. The OISE/UT Survey (formerly OISE Survey) of educational issues was initiated in 1978 to fill a near vacuum in regular polling on educational issues. It remains the only regularly administered survey on education policy issues in Canada. (The survey was partly modeled on the annual Phi Delta Kappan Gallup survey in the US.) The general population survey was administered by the Gallup Canada until 1992, and thereafter by the Institute for Social Research at York University. A parallel mail survey of a supplementary sample of corporate executives has been conducted at each administration. An active data archive is maintained at the Ontario Institute for Studies in Education, University of Toronto. Over the past 18 years the survey has documented trends in public assessments of schools (satisfaction, changes in quality) and views on educational funding and other core policy areas.

 Differences between groups based on OISE/UT survey results are generally statistically significant at the .05 level or better. As a conservative guide, differences between the views of corporate executives and parents in excess of 12 percentage points are unlikely (p=.05) to be due to chance; a margin of 10 percentage points can be used for significant differences between the corporate executives and the general population.

 We contrast the views of corporate executives to those of the general public as a whole and to parents. The corporate executive sample for each survey is drawn from the latest *Financial Post Directory of Directors*. The response rate is typically about 33%. A majority of respondents are from organizations with 500 or more employees. Corporate executives are too small a sample to be differentiated by demographic characteristics. It is worth noting, however, that many executives are parents of schoolchildren and are more concentrated in the 35-54 age group than the general population sample. (The parents' group on which our analysis is based does not include corporate executive parents. These two groups are mutually exclusive.)
3. Results of Gallup and OISE/UT questions cannot be directly compared due to differences in question wording and in the scales used. In particular, the OISE/UT survey question has a neutral midpoint; the Gallup question does not. Nationally, Gallup recorded the support of 65-70% for higher spending on elementary and high schools over the years 1986-1996.
4. The sharp increase between 1986 and 1988 in the proportion of executives willing to support higher funding is less marked for postsecondary education than for elementary/ high schools. In the case of universities, support for higher spending increased in stages: 20% at the beginning of the decade, 30% in 1984-1986, and finally 48% in 1988 before plummeting to levels below those found at the beginning of the 1980s.
5. As this article was in preparation two Canadawide polls conducted in late 1997 (Harris, 1998; *Globe and Mail*/National Angus Reid Poll, 1997) appeared to indicate a sharp revision in public attitudes toward government spending. Both polls found a higher priority for deficit/debt reduction or for a tax cut than for more spending on social programs. On closer examination this change in public views seems more apparent than real. These more recent polls asked about priorities to "increase social spending" (Sun/Roper poll) or for "spending more on government programs" (*Globe and Mail*/Angus Reid poll) without explicitly referencing health and education as did polls conducted an year earlier (Angus Reid, 1996; Edwards & Hughes, 1996b; Livingstone et al., 1997). The OISE/UT survey has tracked public preferences for government spending overall as well as spending for education. Public support for increased government spending for all purposes has consistently been much lower than for spending on schools (Livingstone et al., 1997). For divergent analyses of the late 1997 poll results see Bricker (1997), Feschuk (1997), and Graves (1997).
6. It is also important to keep in mind the factor of sampling error. Poll results are reported as single numbers, and trend lines appear as a hairline moving across a graph. But each single number lies at the center of a "confidence interval" (hence the familiar statement that results should be accurate to 3-4 percentage points 19 times in 20), and the hairline is really a band 6-8 percentage points wide for typical sample sizes of 1,000. Thus caution is required in interpreting sharp changes between any two consecutive polls. Although it is virtually indisputable that confidence in schools dropped significantly between 1989 and 1993, we suspect that the extent of the drop may have been boosted by sampling error. The differences in poll results between 1989 and 1993 are considerably greater than between 1984 and 1994. The proportion of respondents with high confidence in schools was exceptionally high in 1989 compared with prior years; the proportion in 1993 was exceptionally low compared with succeeding years. It may be that the public was riding a wave of growing confidence in the late 1980s that broke soon after. Or it may be that there was a much more modest public reassessment of schools between the late 1980s and early 1990s that got exaggerated in the

polls due to a coincidence of sampling error boosting apparent confidence ratings in 1989 and diminishing them in 1993. We will never know.

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Satisfaction with Education in Alberta

Alberta Education surveys parents, high school students, and the public as part of its annual accountability cycle. A survey is a form of public consultation that gives ordinary citizens the opportunity to express their opinions on policy priorities and issues. The Alberta surveys are tied directly to the goals for restructuring education. Selected provincial survey results are presented and discussed as well as compared with external groups and against established achievement outcomes. Triangulation helps establish the credibility of survey findings. Wide dissemination of findings encourages discussion and use, thus contributing to a better informed public, more considered government polices, and confidence in public education.

Pour mieux répondre à ses responsabilités, l'Alberta Éducation, de façon annuelle, fait des sondages auprès des parents, des élèves du niveau secondaire ainsi que des membres du publique. Cette forme de consultation auprès du public—qu'est un sondage—permet aux citoyens et aux citoyennes ordinaires d'exprimer leurs opinions vis-à-vis divers aspects de la politique en éducation. Ces sondages sont directement rattachés aux buts énoncés pour la restructuration de l'éducation. Nous présentons et nous discutons certains résultats de sondage provinciaux et nous les comparons avec ceux de groupes externes ainsi qu'avec les critères de rendements établis par l'Alberta Éducation. La triangulation aide à déterminer la crédibilité des résultats des sondages. La grande dissémination de l'analyse des résultats de sondage promeut la discussion et l'utilisation qui contribue à mieux renseigner le public, des politiques éducatives mieux réfléchies et de la confiance dans l'éducation publique.

Satisfaction is an important indicator in a democratic society. Because an educated citizenry is essential to the economic and social well-being of a country, citizens must state their opinions about publicly funded institutions so that policy-makers can take their wishes into account when developing policies and making decisions. This article discusses satisfaction with education in Alberta. It examines the findings of surveys administered in 1995 and 1996 to provincially representative random samples of 2,400 Albertans (800 each of high school students in grades 10 to 12, parents of children in kindergarten to grade 12, and the public). Students and their parents are the primary clients of education and have a right to express their opinions on how well schools are serving their needs. The public, a heterogeneous group of citizens representing all of us, pays for education and has a right to express its views on how well education is doing.

If education is to become more client-oriented, then a survey is an important mechanism for achieving a more suitable orientation. A survey is a policy instrument that informs the public policy process and serves to confirm or challenge assumptions and interpretations of student assessments, and administrative and financial data. A survey is a form of public consultation that gives

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ordinary citizens the opportunity to express their opinions on policy priorities and issues. Their views can confirm or question policy and practice. Regular use of such consultation allows governments and organizations to tap the pulse of the public and specific groups in order to inform policy decisions. Alternative viewpoints are valuable because they describe the range of opinions among different groups—parents, students, the public, educators, and business. Each group has its own perspective that helps to identify strengths, weaknesses, and issues in education.

Surveys are often the only way of obtaining feedback on the performance of some aspects of education. They provide a systematic way to identify respondents' preferences, whether political, social, educational, economic, or consumer-oriented. Surveys help decision-makers balance the opinions of special interest groups by expanding their base to a more representative sample of the public. The strengths of survey methods are the value of statistical sampling, consistent measurement, and the ability to obtain information not systematically available elsewhere or in the form needed for analyses (Fowler, 1988).

Public perceptions are important for gauging the degree of support for education and specific policy issues. McEwen (1995) found that seven provinces collect information on perceptions about selected aspects of education, but none has done so as long or as consistently as the Ontario Institute for Studies in Education (OISE), which has been conducting biennial surveys of public attitudes toward education in Ontario since 1978. In the United States, Phi Delta Kappa (PDK) has been conducting and reporting American attitudes toward public schools on an annual basis since 1969. In a review of the themes, methods, and uses of five surveys—two provincial (Alberta Education and Ontario Institute for Studies in Education), two national (Phi Delta Kappa and Public Agenda), and one international survey (Organization for Economic Cooperation and Development), McEwen (1996) found five major themes: quality of education, standards and expectations, funding and cost, role in decisions, and curriculum. Each survey also addressed topics of interest to the sponsoring agency. Collectively the findings represent the views of almost 23,000 respondents and provide support for public education in Canada, the US, and 11 European countries. Each survey also raised many important issues for educational authorities to address.

Alberta Surveys

In 1993 the Government of Alberta introduced the concept of three-year business plans for each department, agency, and organization receiving government grants. Alberta Education's (1994) first plan, *Meeting the Challenge: Three-Year Business Plan for Education 1994/95 to 1996/97*, called for more and better reporting of educational information to enhance public accountability for results. It was the product of two years of discussions and consultations with Albertans on the concerns and priorities for education in the future. The plan is updated annually and provides direction for the future of basic (K-12) education in the province; the fourth plan was released in April 1997.

The 1996/97 to 1998/99 plan (Alberta Education, 1996b) contains nine goals and 19 expected results. Thirty-three measures of educational performance are

used to assess the achievement of key results and to ensure restructuring is enhancing school-based decision-making as well as strengthening provincial control of cost and quality. Achievement of results is reported in the province's annual report on educational performance, *Results Report on the Three-Year Business Plan for Education ECS to Grade 12* (Alberta Education, 1996c).

Surveys are an integral component of Alberta's annual planning and reporting cycle. The 1995 satisfaction with education in Alberta surveys were introduced to assess the opinion of seven groups of respondents—parents, high school students, the public, teachers, principals, postsecondary instructors, and business/employers—on selected aspects of K-12 education. Relevant questions from earlier surveys were incorporated to provide trend information wherever possible. The surveys collected data on 12 measures for six of the nine goals in the business plan: (a) learning standards and expectations, (b) parental choice and involvement, (c) improving teaching, (d) increased efficiency and effectiveness, (e) cost of education, and (f) an open and accountable education system. A limitation of this survey (and essentially all surveys) is that the sponsor, that is, the government, determined which questions to pose.

Alberta Education contracted with Environics West, a full-service marketing research and consulting firm, to assist in developing the instruments and to collect and analyze provincial data. In total 3,611 telephone surveys were conducted with provincially representative random samples of each of the seven respondent groups. Results were reported in the first annual provincial results report on the business plan for the 1994-1995 school year (Alberta Education, 1995).

The 1995 results established benchmarks (or baseline data) for satisfaction with the goals addressed in the Three-Year Business Plan. The results of the surveys and the other measures in the plan and report were used to identify improvement areas for the 1995-1996 school year. Survey details are provided in three Environics West reports. In order to help school jurisdictions use surveys at the local level, Alberta Education distributed the set of instruments to all districts (Environics West, 1995b), sponsored a pilot project to compare provincial results with results at the school level and between telephone and questionnaire methodologies (Environics West, 1995a), and commissioned a manual to provide direction and assistance to school jurisdictions in using satisfaction surveys (Environics West, 1995c). Annual revision of the Three-Year Business Plan and its measures and the development of school board plans aligned with key provincial directions will address key areas of improvement.

Table 1 describes the types of respondents, sample sizes, completion rates, and confidence intervals for the 1995 and 1996 provincial surveys. Representative random samples of 800 respondents were collected for each of the three major groups: K-12 parents, high school students, and the public. Smaller samples of other respondent groups were also surveyed: teachers, postsecondary instructors, and business/employers in 1995 and beginning teachers and their principals in 1996. Although it is desirable to include several groups, it is difficult to interpret results from smaller samples compared with the three major groups. Periodic surveying of specific groups, however, can address questions of interest to educators, administrators, business/employers, and

Table 1
Summary of the 1995 and 1996 Provincial Telephone Surveys

Respondent Group	*1995 Provincial Surveys*			*1996 Provincial Surveys*		
	Sample	*Completion Rate*	*95% Confidence Interval*	*Sample*	*Completion Rate*	*95% Confidence Interval*
K-12 parents	802	54%	±3.5%	800	54%	±3.5%
High school students	800	76%	±3.5%	800	62%	±3.5%
Public	801	42%	±3.5%	801	36%	±3.5%
Teachers[a]	301	79%	±5.8%	92	94%	±9.8%
Principals[b]	103	91%	±9.8%	100	82%	±9.8%
Postsecondary	400	69%	±5.0%			
Business/employers	404	49%	±5.0%			
Total Interviews	3,611			2,593		

Source: Alberta Education (1995, 1996c).
[a]In 1995 a representative random sample of all teachers, in 1996 beginning teachers only.
[b]In 1995 a representative random sample of all principals, in 1996 principals of beginning teachers only.

others whose views are usually part of the public sample. The 1995 surveys were conducted between March 8 and April 7, 1995 and between April 25 and May 27, 1996.

Sample representativeness is essential for confidence in survey findings. Telephone interviewing allows better control of the sample, which helps to reduce the nonresponse bias that is prevalent in self-completed surveys. Alberta Education decided to change from written to telephone methods after the 1992 surveys elicited response rates below 20%. A third of high school graduates and their parents received a questionnaire in the September 1992 mailout of high school diplomas. In total, 1,263 graduates (19% response rate) and 1,188 parents (18% response rate) completed the surveys. Telephone surveying in 1995 quadrupled high school students' response rate and tripled parents' response rate.

Computer-Assisted Telephone Interviewing (CATI) has revolutionized data collection. In this system, interviews are programmed onto computers and data captured as they are collected. This eliminates the need for manual data entry, thus reducing potential errors, and provides the opportunity for immediate compilation and turnaround of responses. It also allows daily review of the sample to ensure that it meets stratification criteria and quotas.

Findings

Selected findings from the 1995 and 1996 surveys are presented, followed by some comparative results for different respondent groups over time, and a discussion of perception and reality. Only results for the 2,400 respondents representing the three major groups (parents, students, the public) are included because samples of 800 per group mean the results are accurate within ±3.5%,

19 times out of 20, compared with larger margins of error for the smaller samples.

Provincial Results

Table 2 presents the degree of satisfaction (satisfied and very satisfied) or agreement (agree and strongly agree) on selected questions. There was a high degree of satisfaction among all respondent groups on most measures. Where common questions were asked across groups, students were the most satisfied, followed by parents, then the public.

The first perception question asked students and parents, "Overall, how satisfied are you with the quality of education that you are receiving in your school" (students) and "that your child is receiving in his/her school (parents)? Are you very satisfied, satisfied, dissatisfied, or very dissatisfied?" High school students (94% in 1995 and 95% in 1996) and K-12 parents (88% in both years) were satisfied with the quality of education they or their children are receiving in their school. Placement of this question at the beginning of the survey was deliberate to ascertain respondents' first impression of satisfaction before they are influenced by subsequent questions.

Goal 1 of the plan is to "focus education on what students need to learn; ensure that high standards are established, communicated and achieved." The desired result of having Alberta's learning standards meet the expectations of Albertans was measured by asking parents and the public if they agreed that students are learning what they need to know. More parents than the public agreed with this assertion: 8 in 10 parents compared with 6 in 10 public respondents. These groups were also asked, "Overall, do you feel the learning expectations of students are too high, about right, or too low?" A significantly higher percentage of both parents and the public rated the expectations "about right" in 1996 (60% parents and 46% public) compared with 1995 (53% parents and 41% public).

On a series of questions about three widely shared goals of public education—high school graduates' preparation for postsecondary education, responsible citizenship, and the workplace—high school students were the most positive: grades 10-12 students agreed that high school graduates in Alberta are prepared to enter postsecondary education and training (87% and 91% in 1995 and 1996 respectively) compared with K-12 parents (65% and 70%) or the public (60% and 68%). Anyone who has been out of high school for some time has only to write any of the grade 12 diploma examinations (there are 11) to appreciate the high expectations held for graduating students today. More students also agreed that they are prepared to be responsible citizens (79% and 89%) than either parents (47% and 53%) or the public (43% and 53%). Significantly more of those surveyed in 1996 agreed with these two assertions, but these differences may be due in part to the rewording of the questions. In 1996 respondents were asked if high school graduates "are prepared to ..." whereas in 1995 they were asked if graduates "are being taught the knowledge, skills, and attitudes to ..." Fewer parents and the public agreed that high school graduates are prepared to enter the workplace (40% and 39%) than high school students (80%). There was no change over time on this question. Survey findings tell us what respondents think but not why. Do parents and the public

Table 2
Selected Findings on the Provincial Surveys (Percent)

Goal	Question[a]	1995 Parents[b]	1995 Public	1995 Students[c]	1996 Parents[b]	1996 Public	1996 Students[c]
1	Satisfaction with the quality of education received in school	88	–	94	88	–	95
	Students are learning what they need to know	79	57	–	82	61	–
	High school graduates are prepared to enter postsecondary education and training[d]	65	60	87	70	68	91
	High school graduates are prepared to be responsible citizens[d]	47	43	79	53	53	89
	High school graduates are prepared to enter the workplace[d]	40	40	80	39	39	80
2	Opportunity to be involved in decisions at schools in community	78	62	73[e]	75	68	73[e]
4	Teachers provide the help and support needed to learn	–	–	84	81	–	88
5	Teachers use a variety of approaches to meet their individual needs	–	–	82	–	–	88
	Child's school is well run	89	–	–	87	–	–
	Local school system is well run	70	67	–	71	68	–
6	Quality of programs	–	–	–	85	–	92
	Quality of services	–	–	–	81	–	87
8	Value for money spent in school[f]	73	51	–	78	52	–
9	Information on child's educational progress and achievement	88	–	–	86	–	–
	Access to information on how money is spent by:						
	• local school[g]	64	49	–	60	46	–
	• local school board	48	44	–	49	45	–
	• provincial government	32	34	–	36	37	–

Source: Alberta Education (1996c).

[a]Percentages represent degree of satisfaction (satisfied and very satisfied) or agreement (agree and strongly agree).

[b]Parents of students in kindergarten to grade 12.

[c]High school students (grades 10 to 12).

[d]In 1995, these questions were worded, "High school graduates are being taught the knowledge skills and attitudes to ..." whereas in 1996 they were, "high school graduates are prepared for ..."

[e]Satisfaction with the opportunity to be involved in decisions that affect student life in your school.

[f]Wording for parents, "value for money that is spent in your child's school", for the public, "value for money that is spent in Alberta's schools."

[g]Wording for parents, "how money is spent in your child's school"; for the public, "how money is spent in schools in your community."

disagree that students are prepared for the workplace because they have a better sense of what is required to work given their experience with the workplace, feel students need a postsecondary education to succeed, are knowledgeable about current economic conditions and their impact on employability, or lack knowledge of what is being taught in school? Are high school students significantly more positive because they are confident about their future, feel they have the knowledge, skills, and attitudes required for the workplace, or some other reason? Students generally have limited or no experience in the world of work, whereas their parents and other adults do. Reasons for opinions need to be explored by more in-depth questioning through interviews or focus groups.

Another desired result is for parents, business, and the community to have meaningful roles in education (goal 2 in the plan). One way for them to be involved is to participate in making decisions about education. All three respondent groups were asked if they are satisfied with their opportunity to be involved in decisions at schools in their community. For students this question asked about decisions that affect student life in their school. Parents were more satisfied (78% in 1995 and 75% in 1996) than the public (62% in 1995 and 68% in 1996), although the latter was significantly more positive in 1996. Students were equally satisfied both years (73%).

Do teachers provide the help and support students need to learn? Significantly more students (84% in 1995 and 88% in 1996) agreed with this question the second year. When this question was added to the parent survey in 1996, 8 in 10 parents agreed that their child's teachers provide the help he or she needs to learn. Students were also asked if teachers use a variety of approaches to meet their individual needs. Significantly more students agreed with this assertion in 1996 (82% in 1995 and 88% in 1996).

Another desired result is for jurisdictions and schools to be efficient in their use of available resources (goal 5). Parents and the public were asked how satisfied they are that their local school system is well run. There was little difference between the two groups in either year with about 7 in 10 respondents in both groups indicating satisfaction. Parents were also asked if their child's school is well run; they were more satisfied (89% in 1995 and 87% in 1996) about the school than their local school system. This finding is not surprising as most parents probably have more interaction with their child's school than with the jurisdiction, and a consistent finding is that the more direct experience respondents have, the more positive they are.

A new question in 1996 asked students and parents to rate their satisfaction with the quality of programs and services provided at their/their child's school: 92% of high school students and 85% of K-12 parents were satisfied with the quality of the required and optional courses offered; 87% of students and 81% of parents were satisfied with the quality of the services offered (e.g., counseling, library, special education). These questions were designed to assess educational opportunities.

Cost containment is a goal of restructuring education in Alberta (goal 8). Parents and the public were asked how satisfied they are that they are "receiving value for money that is spent in their child's school" (parents) and "money that is spent in Alberta's schools (public)." Major differences mark the percep-

tions of these two groups: 7 in 10 parents and 5 in 10 public respondents were satisfied with the perceived value for money spent. Parents were more satisfied in 1996 than they were in 1995 (78% and 73% respectively). The 1996 results report presented five additional displays related to this goal: expenditure per public student per school day, cost of new school construction per square meter, average annual provincial equalized residential mill rates, interprovincial comparisons of expenditures per student, and interprovincial comparisons of per capita expenditures on education. In all instances costs are decreasing (Alberta Education, 1996c). The relationship between perceived value for money spent and reduction in costs is unclear.

Goal 9 aims to ensure that the education system is open and accountable. Most parents (90% in 1995 and 87% in 1996) were satisfied with access to information from their school about their child's educational progress and achievement, and about 9 in 10 (88% and 86% respectively) were satisfied with the quality of this information. Another series of questions asked respondents about satisfaction with their access to information about how money is spent. Again, the closer the respondent is to the source, the more positive the attitude. Parents were the most satisfied (64% and 60% in 1995 and 1996 respectively) with access to information on how money is spent in their child's school compared with the public response about schools in their community (49% and 46% respectively). Fewer parents were satisfied with access to information on how money is spent by the local school board (48% and 49%) and by the provincial government (32% and 36%). Because parents are knowledgeable about what happens in their child's school, they are more positive than the public on related questions. Superior knowledge does not appear to extend to the school board and provincial levels, where parent and public perceptions are similar. A competing interpretation is that people are generally less positive about policy-makers (the school board and government), which may influence their opinions about access to information from these groups.

Where people get their information about education is an important question for educators because it identifies targets for information dissemination. Parents and the public were asked, "Thinking about how you get information about Alberta's elementary, junior and senior high schools, which sources of information have you found to be the most useful?" Table 3 presents the four most useful sources identified by respondents in this open-ended question. Both groups identified newspapers as the most useful source. This finding is consistent with a March 1995 search of online newspaper and newswire databases in which McEwen (1995) found more than 2,000 news items on education available for print and electronic media to use in their coverage of education. In Alberta, newspapers published more than 1,200 articles on education. By contrast, Alberta Education released an average of six press releases per month over 12 months. This example illustrates how the media present far more information about education than a provincial department of education. That more parents identified newspapers as a useful source of information than either the school or its newsletter is a finding that warrants further investigation. Frequency and scope of coverage are areas that could be explored.

Table 3
Most Useful Sources of Information About Alberta's Schools (Percent)

Source	Parents		Public	
	1995	1996	1995	1996
Newspapers	45	46	49	50
School	35	26	15	15
School newsletters	27	38	12	14
Television	16	17	25	21

Source: Alberta Education (1995, 1996c).

Secondary analyses were conducted in 1995 and 1996 to investigate relationships between respondents' perceptions and various classification variables (e.g., school size, level of instruction, jurisdiction type, geographic location, age, gender, and other group-specific characteristics) for the parent, student, and public samples. For all groups the majority of cross-tabulations did not result in substantive differences, suggesting that, overall, the perceptions of parents, students, and the public are relatively stable across the classification variables used in the analyses.

For parents the greatest number of substantive differences (i.e., a statistically significant difference among categories of the classification variable of 10% or more within a generalizable pattern or trend) was found by child's academic performance and preparation for the current grade, and involvement in school and board decision-making, and for students by preparation for the current grade. The findings suggest that parents' perceptions appear to be a function of how well their child is doing in school and their personal level of involvement in decision-making, and students' perceptions appear to be a function primarily of their feelings of preparation for their current grade. This finding is encouraging because it indicates a strong relationship between performance and perception and substantiates the emphasis on academic achievement in schools. It is also consistent with the effective schools literature that advocates a culture of achievement as a means to high student performance (Coyle & Witcher, 1992; Downer, 1991; Zigarelli, 1996). Ensuring students are prepared to enter the grade they are in and promoting high academic achievement in schools will foster more positive parent and student perceptions about education.

The greatest number of substantive differences for the public was found for involvement in school and school board decision-making, parental status, and age. Younger respondents and parents who have children in elementary and secondary school are more positive than older respondents and those whose children are no longer in school. Albertans with children in school are more positive because they have direct experience with education and are better informed. This finding suggests greater emphasis on informing those who do not have children in school might improve public perceptions about education.

Establishing trends requires at least three years of data. The 1997 findings will indicate if changes from 1995 to 1996 continue and if others emerge. It will

Table 4
Alberta and American Ratings of Their Local Schools (Percent)

Grade	Public[a]				High School Graduates[f]	Parents of Graduates[f]	High School Students[g]	K-12 Parents[g]
	1991		1995					
	Alberta[b] (N=1,345)	USA[c] (N=1,500)	Alberta[d] (N=801)	USA[e] (N=1,311)	1992 (N=1,263)	1992 (N=1,188)	1995 (N=800)	1995 (N=802)
A & B	41	42	51	41	72	69	76	77
A	5	10	9	8	21	25	15	28
B	36	32	42	33	51	44	61	49
C	33	33	31	37	23	24	21	18
D	7	10	7	12	4	4	3	3
Fail	2	5	2	5	1	1	<.5	1
DK/NR	17	10	8	5	0	2	0	1

[a]Telephone surveys—Question: "Students have often been given the grades of A, B, C, D, or FAIL to indicate the quality of their work. If you graded the public and separate schools in your community in this way, what grade would you give them?" Note: Separate schools are fully funded in Alberta. The American survey excluded this word because these schools are not public in the US. The American question was also worded slightly differently.
[b]Alberta Education (1993, p. 71).
[c/e]PDK Gallup Poll, reported in 1995 (ratings given the local public schools) (Elam & Rose, 1995, p. 42).
[d]Environics West Surveys (1995).
[f]Alberta Education (1993, p. 71). Written survey of high school graduates and parents of high school graduates. Question: "What grade would you give your high school/your son's/daughter's high school?"
[g]Telephone survey of high school students and K-12 parents (grading their own or child's school).

also be useful to track whether some of the differing levels of satisfaction among respondent groups converge or diverge over time.

Comparisons Over Time and Respondent Groups

Results are more meaningful and easier to interpret if they have a point of reference. Common points of reference include time, groups, and targets. Results can be tracked over time, either annually or periodically; they can be compared with local, provincial, national, and international groups; and they can be compared against predetermined standards or targets. A target sets an improvement increment over what exists (a benchmark) in an attempt to reach what is desired (the standard). For example, Alberta compares its student performance on provincial grade 3, 6, and 9 achievement tests and grade 12 diploma examinations over time and against achievement standards, and with external comparators on national assessments such as the Council of Ministers of Education Canada's School Achievement Indicators Program and international studies such as the Third International Mathematics and Science Study in order to have a better understanding of how well students are performing academically. Similarly, survey results can be compared over time and with external groups to help interpret affective perceptions about education. Exter-

Table 5
Provincial Perceptions of the Quality of Education in Schools (Percent)

Quality of Education[a]	*Alberta Public*		*Parents of Graduates*[d]	*K-12 Parents*[e]	*Ontario Public*[f]	
	1991[b] *(N=1,345)*	*1995*[c] *(N=801)*	*1992 (N=1,188)*	*1995 (N=802)*	*1990 (N=1,032)*	*1994 (N=1,070)*
Improved	23	18	15	21	25	23
Stayed the same	40	39	19	41	24	21
Became worse	18	31	40	28	39	35
DK/NR	19	11	26	10	12	21

[a]Question: "In general, would you say the quality of education provided by the schools in your community has improved, stayed the same, or become worse in the last five years?"
[b/d]Alberta Education (1993, p. 73).
[c]Environics West Surveys (1995a, b).
[e]Environics West (1995a, p. 40).
[f]Livingstone, Hart, and Davie (1995, p. 22). Question for Ontario public, "Overall, would you say that the quality of education received by students in Ontario high schools had improved, worsened, or remained the same over the past 10 years?"

nal comparators are limited by their availability. Selected satisfaction findings are presented for common questions used in the Alberta, PDK (for the US), and OISE (for Ontario) surveys.

Tracking trends over time can indicate if improvements are taking place. Table 4 presents perceptions of how various respondent groups rate the public schools in their community. This is a question adapted from the annual Phi Delta Kappa/Gallup Poll in the US. The results are presented for the public in Alberta and the US in 1991 and 1995, and Alberta high school graduates and their parents in 1992 and high school students and K-12 parents in 1995. The public results indicate that in 1991 the Alberta and US results were quite similar with about 4 in 10 respondents in both groups assigning the public schools in their community a grade of A or B. By 1995 10% more Albertans were giving their schools an A or B than their American counterparts. This increase can be explained in part by the reduction in the nonresponse rate for Albertans. That more Albertans responded in 1995 may be due to increased media attention to education, especially on national and international comparisons (see the discussion on perception and reality below). The 1992 samples of Alberta high school graduates and their parents were much more positive than the public with about 7 in 10 respondents assigning a grade of A or B to their (or their child's) high school. The 1995 samples of Alberta high school students and K-12 parents were also positive about the school they or their child attends. These results indicate that the closer respondents are to the school they are asked to grade, the higher the grades they give them. The Phi Delta Kappa poll has found this to be true in every year since 1986 (Elam & Rose, 1995). Implicit in this finding is that knowledge of and experience in the education system positively influences perceptions.

Another tracking question asks whether the quality of education provided by schools in the community has improved, stayed the same, or become worse in the last five years. Since the current restructuring began with the 1994/95

plan, earlier surveys permit some indication of the impact of restructuring in Alberta on public and parent perceptions. This is also a tracking question on the OISE survey, although its time frame is 10 rather than 5 years. Table 5 presents the perceptions of the Alberta public in 1991 and 1995, the Ontario public in 1990 and 1994, and Alberta parents in 1992 and 1995. One in five of the Alberta and Ontario respondents (in 1991 and 1994 respectively) was unable or chose not to answer this question. Does this mean that they did not know, had no opinion, did not understand the question, or some other reason? The finding does suggest, however, that a significant percentage of people feel they need more information in order to judge schools. A quarter of the 1992 Alberta parents of graduates did not respond. For the other three samples, 1 in 10 did not respond. About 4 in 10 Alberta public and K-12 parent respondents felt that the quality of education had remained the same in the last five years. In Ontario, more public respondents felt that the quality had worsened over the past 10 years (39% and 35% in 1990 and 1994 respectively), a sentiment shared by 40% of the 1992 Alberta parents of graduates. Trends over time are difficult to interpret given so few data points because of the high and fluctuating nonresponse rate for all groups. Of note is that public nonresponse decreased over time in Alberta (19% to 11%) and increased in Ontario (12% to 21%). Continuing to use this tracking question over time in Alberta will help to interpret the findings. Livingstone, Hart, and Davie (1995), who have been asking this question since 1979, found a slow but consistent decline in the proportion of respondents who see improvement in high school education and a consistently higher proportion of respondents who think quality has deteriorated.

An important addition to the 1997 Three-Year Business Plan is the establishment of targets for survey results. Achievement standards have been in place for many years, where 85% of students are expected to achieve the acceptable standard (a mark of 50% or higher) and 15% are expected to meet the standard of excellence (a mark of 80% or higher) on the provincial achievement tests and diploma examinations. Provincial satisfaction targets have been set for 1999 in six areas: overall quality of education, various aspects of teaching/school, students' computer skills and access to technology in school, high school graduates' knowledge and skills to get a job and preparation for postsecondary studies, information on children's educational progress and achievement, and value for public funds spent on education (Alberta Education, 1997). This addition of satisfaction targets means future survey results can be compared not only over time and among respondent groups, but also according to provincial expectations.

Perception and Reality

Do perceptions reflect reality? This is a difficult question given all the factors that affect opinions. Nevertheless, it is an important one that requires examination of other sources of data that may shed light on changes. Rate of high school completion, provincial achievement, and national and international achievement results provide ways to compare perceptions and student performance.

The percentage of Alberta students who completed high school within six years of entering grade 9 was 68% in 1991-1992 and 69% in 1994-1995, essential-

ly no change. This rate is below the target of 75% completion established for this indicator.

Alberta Education uses linear equating to compare test scores over time. Machine-scorable anchor tests are designed and developed to be parallel to the machine-scorable components of each diploma examination. Linear equating is used to equate the results from each diploma exam to the baseline year of 1992. Has achievement as measured by the diploma examinations changed over the past few years? There have been few significant changes in the level of student achievement on the machine-scorable component of most of the diploma examinations between 1990 and 1995. Mathematics 30 is the exception where student achievement has shown significant improvement each year since 1992 (Alberta Education, 1996a). However, the percentage of students who achieve the acceptable standard in Mathematics 30 has consistently been below the other subjects. In 1995 74% of students who wrote the Mathematics 30 exam achieved the acceptable standard compared with 81% in Biology 30 and 87% in English 30, with the percentages in the other subjects falling between these two. Because annual assessment of the core subjects—English, mathematics, science, and social studies—in grades 3 (English and mathematics), 6 and 9 (all four subjects) in 1995 replaced the earlier method of assessing only one subject per grade per year, it is not yet possible to comment on trends over time at the lower levels.

Student performance on provincial assessments provides an indication of how well students perform relative to provincial standards, but does not indicate how well Alberta standards compare with those elsewhere. National and international comparisons provide a normative frame of reference that can shed light on standards. Canada and the US have participated in two recent international assessments: the 1991 International Assessment of Educational Progress (IAEP II) and the 1995 Third International Mathematics and Science Study (TIMSS). Twenty countries participated in the IAEP II age 13 assessment of mathematics and science, and 14 in the age 9 assessment. Forty countries participated in the TIMSS grade 8 assessment of mathematics and science and 26 in the grade 4 assessment (see Educational Testing Service, 1992; Lapointe, Askew, & Mead, 1992; Lapointe, Mead, & Askew, 1992; Robitaille, Taylor, & Orpwood, 1996, 1997, for a detailed discussion of these assessments).

Table 6 presents the average percent correct for Alberta, Ontario, the US, and the top performing countries on each assessment to give some indication if perceptions relate to student performance. The results for the IAEP age 9 assessment are not discussed because Alberta did not participate in that study. Korea and Taiwan had the best performance on the IAEP II age 13 assessments both in mathematics (both at 73% correct) and science (Korea, 78% and Taiwan, 76%). On the TIMSS grade 4 mathematics assessment Korea and Singapore ranked first (76% correct), while on science Korea ranked first at 74%. On the TIMSS grade 8 assessments Singapore ranked first both on mathematics (79%) and on science (70%). Alberta students performed particularly well in science, ranking third on all three assessments: 74% (tied with Switzerland) on the IAEP II, 68% on the TIMSS grade 4 (after Korea and Japan) and 65% (tied with Japan) on the TIMSS grade 8 assessments. On the mathematics assessments Alberta's students performed better than their Ontario counterparts on all three assess-

Table 6
Student Achievement in Mathematics and Science (Average Percent Correct)

	1991 IAEP II[a]		1995 TIMSS[b]	
	Mathematics	*Science*	*Mathematics*	*Science*
	Age 13		*Grade 8*	
Singapore	–	–	79	70
Korea	73	78	72	66
Taiwan	73	76	–	–
Japan	–	–	73	65
Switzerland	71	74	62	56
Alberta	64	74	61	65
Ontario[c]	58	67	54	56
United States	55	67	53	58
	Age 9		*Grade 4*	
Korea	75	68	76	74
Singapore	–	–	76	64
Japan	–	–	74	70
Alberta	–	–	65	68
Ontario[c]	57	63	57	62
United States	58	65	63	66

[a]See Lapointe, Askew, and Mead (1992); Lapointe, Mead, and Askew (1992).
[b]See Robitaille, Taylor, and Orpwood (1996, 1997).
[c]Results are for Ontario English in the IAEP II study.

ments; they also performed better than their American counterparts on the IAEP II and the TIMSS grade 8 assessments, and as well as these students on the TIMSS grade 4 assessment. Overall, Alberta math achievement is in the top third of participating countries.

On the basis of the available evidence, Alberta achievement on provincial exams has remained essentially the same between 1991 and 1995. The international assessments suggest that Alberta standards compare favorably with those in other countries, especially in science. Therefore, the modal perception that the quality of education has remained the same (using achievement as the criterion) over the past five years reflects reality. The Ontario results are more difficult to interpret because the time frame is longer (10 years) and there are no provincial achievement data for comparison. The IAEP and TIMSS assessments suggest that Alberta's achievement standards are higher than those in Ontario and the US, two groups for which comparable achievement and survey results are available. Further investigation into the relationship between perceptions and achievement and other desired outcomes would be interesting.

Discussion

The Alberta surveys provide evidence of satisfaction with desired results in the Three-Year Business Plan. The major strength of Alberta's government-sponsored surveys is that they are tied directly to the goals for restructuring educa-

tion, which means that the information feeds directly into the policy and decision processes. Other strengths include the use of common questions over respondent groups allowing comparison of multiple perspectives on the issues addressed in the surveys, annual data collection of the three major respondent groups (parents, students, public) to establish a trend line, and secondary analysis of results to explore relationships among classification and perception variables and to identify areas for further investigation and improvement.

We can have confidence in the findings for several reasons. The primary purpose of the surveys was to provide satisfaction measures for most of the goals and desired results in the Three-Year Business Plan that served as a blueprint for the surveys. Evidence of the validity of the areas addressed in the Alberta surveys is provided by the consistency of themes (quality of education, standards and expectations, funding and cost, role in decisions) in four other surveys (McEwen, 1996). Further validation is provided by the fact that two or three respondent groups answered most of the questions, thereby providing multiple perspectives on desired results. Large provincially representative random samples of parents, high school students, and the public, and multiple administrations contribute to the valid interpretation for the intended use. When results are stable on common questions across respondent groups and over time, external validity is enhanced. Use of a third-party agency to collect and analyze the data ensured the credibility and trustworthiness of the data. Furthermore, the survey results are not used in isolation, but together with achievement results and administrative and financial data are used to inform policy and decisions. Dissemination of the findings through the annual results report ensures that the data are open for inspection and use.

The 1995 and 1996 provincial surveys indicate a high degree of satisfaction among all respondent groups on the majority of measures. Secondary analysis revealed few substantive differences on the majority of cross-tabulations between perceptions and classification variables. Substantive differences were found for parents' perceptions of how well their child is doing in school and their personal level of involvement in decision-making and for students, perceptions of their feelings of preparation for their current grade; public perceptions appear to be a function of their knowledge of and direct experience with the education system. Comparisons of Alberta and external groups on two tracking questions indicated that Albertans' perceptions compare favorably with those of respondents in the US and Ontario.

Students are positive about the preparation they are receiving for their future, and parents report they are generally satisfied with their children's education. A consistent finding from the Alberta and PDK surveys is that the closer the respondent is to the education system, the more positive the perceptions. The further removed respondents are from school, the lower the rating. Is this the result of the public's lack of knowledge of what happens in schools (as many public school advocates maintain), or that parents are not critical enough? Almost half of the parent and public respondents identified newspapers as the most useful source of information about education in the Alberta surveys. The implications of this finding include the power of the media to influence perceptions, the need to better inform the general public (the usual target of surveys) about what happens in schools, the desirability of surveying

parents and students in addition to the public, and then reporting the results for common questions across all three respondent groups. Moreover, the educational community should make a concerted effort to publish information about schools in the local newspaper.

Repeating the tracking questions in 1999 would serve two purposes: to assess the impact of restructuring after five years of implementation, and to see how Albertans perceive education compared with respondents elsewhere where different models of education are in place. External comparisons are important for interpreting perceptions. Comparisons on a couple of questions common to the Alberta and the PDK and OISE surveys revealed similar response patterns. Longer trend lines would provide a further check on the Alberta results. A Canadian survey could provide national comparators. The Canadian Education Association sponsored national surveys in 1979, 1984, and most recently in 1990 (Williams & Millinoff, 1990). The Canadian Education Statistics Council included satisfaction in the Pan-Canadian Education Indicators Program, but reported only existing sources rather than sponsoring a new satisfaction survey (Canadian Education Statistics Council, 1996). That seven provinces are already collecting perceptions indicates they consider such information valuable for their work. Collaboration among interested provinces to sponsor a common survey through a national agency would be timely and provide provinces with an opportunity to compare how various respondent groups perceive education in their jurisdiction.

Comparing the achievement results of other groups on common assessments helps to identify if perceptions and performance are similar. The review of achievement results over time on the Alberta diplomas and on two recent international assessments indicated that perceptions parallel somewhat how well students performed. This is encouraging because it suggests that perceptions do reflect reality. This finding confirms the secondary analysis of Alberta perceptions, where parents and students who judged their child's or their own performance and preparation more highly were more positive about education.

Secondary analysis is an important way to mine survey data and identify areas for further research. Two examples serve to illustrate this point. Because student performance and perceptions appear to be closely related, it would be fruitful to investigate how the two influence one another and strategies that could improve both student performance and perceptions. Another area is the importance of various policy issues. Rather than asking respondents directly, one can use actual response patterns to derive importance ratings by correlating questions with a criterion such as, for example, overall satisfaction with education (Chakrapani, 1996). Questions that are more strongly related to overall satisfaction can be interpreted as being more important to a particular respondent group in the sense that they have greater "influence" on overall satisfaction. Areas high in both importance and satisfaction are key areas of success. Areas considered high in importance but low in satisfaction could become priority areas for improvement. Such quadrant analysis is useful for developing future surveys, for planning and policy development, and for developing effective strategies for improving quality and increasing respondent group satisfaction with education.

Conclusion

Satisfaction surveys help to serve the needs of a more open and accountable education system. Their increasing use signals an emerging client orientation in a society that is becoming more vocal in its expectations of public education. Findings can confirm or challenge interpretations from other sources of information and can be used for both policy and accountability purposes. Triangulation helps establish the credibility of survey findings. Wide dissemination encourages discussion and use, thus contributing to a better informed public, more considered government policies, and confidence in public education.

Note

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Developing and Sustaining a Community of Inquiry Among Teachers and Teacher-Educators

This article defines and examines a "community of inquiry" in a context of teachers' professional development. A five-year project involving teachers and university educators who meet regularly to discuss teaching and learning (the Learning Strategies Group) is documented and analyzed. This extended time frame allows for an examination of the changes that have occurred in both substantive features of the deliberations in the group and the dynamic features that characterized the nature of the communication between the participants. Sharing of knowledge, support in knowledge construction, development of collective expertise, engagement in progressive discourse and recognition among peers are the features of the community of inquiry discussed in the article.

Cet article attribue une définition à l'expression "communauté d'enquête" et en fait l'examen dans le contexte du développement professionnel des enseignants et des enseignantes. Dans le contexte d'un projet de cinq ans lorsque des d'enseignants et des enseignantes du niveau scolaire ainsi que des éducateurs et des éducatrices du niveau universitaire se rencontraient de façon régulière, nous avons pu documenter et analyser des données d'observation et de participation du groupe. Identifié comme le Learning Strategies Group, ce groupe discutait de ce qui a trait à l'enseignement et à l'apprentissage. Cette période de temps prolongée permet d'examiner les changements qui se sont produits dans le contenu des discussions à l'intérieur du groupe et aussi dans les aspects de la dynamique de groupe qui caractérisaient le genre de communication parmi les participants et les participantes. L'article discute surtout des aspects de la communauté d'enquête qui ont trait au partage des connaissances, à l'appui dans la construction du savoir, au développement de l'expertise collective, à l'engagement de s'entretenir de façon progressive avec autrui et à la considération envers ses pairs.

Introduction

The term *community* has seen a recent revival in the educational literature. It was used extensively by Dewey (1900, 1916) to describe his ideal teaching and learning environment, but has been most recently revived in large measure as a result of two important trends in the educational research literature. The first trend is centered on the movement to develop a wide variety of collaborative partnerships between schools and agencies and institutions that traditionally have not played a significant role in the lives of school teachers or adminis-

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trators. Many of these partnerships are with universities for the purpose of addressing specific needs. These needs include reform in teacher preparation programs, as evidenced by the rapid growth of "professional development schools" (Darling-Hammond, 1994; Goodlad, 1993) or more general reform of the schools themselves (Hargreaves, 1994). There are also movements in some countries to create more partnerships with businesses to address some of the fiscal difficulties experienced by many schools. The underlying rationale for the formation of many of these partnerships comes from the general recognition that schools cannot and should not be asked to solve all the problems created by a rapidly changing society without significant assistance from others who also have a strong interest in maintaining the quality of our educational system. In many of these collaborative partnerships the term *community* has been used to describe the actual, or in some instances the idealized group(s), that are created among individuals from different institutional settings (compare Oakes & Quartz, 1995).

The second general trend follows more in the footsteps of Dewey in that it focuses more on the creation of ideal learning and teaching environments and typically refers to the social grouping of students and a teacher in a classroom setting (Bereiter & Scardamalia, 1993), of teachers and students in a school setting (Sergiovanni, 1994), or of groups of teachers and university educators in a professional development setting (Baird & Mitchell, 1986; Bell, 1993; Lieberman, 1988). This latter trend has been strongly influenced by the increasing popularity of sociocultural theories of learning (Bruner, 1990; Cobb, 1994; Lave & Wenger, 1991; Wertsch, 1991).

It is the use of community in this latter domain of creating, stimulating, and nurturing learning environments that is most germane to this article. In the sections below we briefly describe the context and features of a professional development community in which we have been participants, propose a set of criteria that we think could be used as a basis for defining a "community of inquiry," and finally, discuss how the Learning Strategies Group exemplifies some of these criteria.

Purpose of the Article

We wish to take up some of the above issues by documenting our continuing experiences with a group of high school teachers and university educators that has been meeting regularly for over five years. This extended time frame allows us to examine the changes that have occurred in both the substantive features of the deliberations in this group and the dynamic features that characterized the nature of the communication between participants in the group that called itself the Learning Strategies Group (LSG). We argue that the LSG can be thought of as a community of inquiry by showing that it satisfies most of the criteria that we propose to be important defining features of such a community. Thus our purposes in the this article are threefold. First, we identify some of the issues that we encountered and the insights that we have developed from the creation and subsequent nurturing of a community of teachers and university educators. Second, we discuss some of the dynamics of the group interactions. Third, we outline a set of criteria that has been proposed by Bereiter and Scardamalia (1993) to characterize "knowledge building com-

munities" (KBC) and argue that our notion of a community of inquiry can be thought of as an exemplar of a KBC. Before we begin to examine the LSG in greater detail we provide some background information about the broader educational context that may have had some influence on the participants and their respective decisions to become a part of this community.

The Educational Context and Setting of the LSG

In the late 1980s and early 1990s two trends characterized teacher education and curriculum development in British Columbia. First, teacher education was being discussed as a continuum starting with preservice teachers and continuing on with inservice activities for experienced teachers (Bowman, 1991, British Columbia Ministry of Education, 1990). A second trend, as explicitly identified by a Royal Commission on the state of education in the BC school system, was an endeavor to reconceptualize the nature of learning and the establishment of an appropriate educational environment to support learning. The key principles emerging from this commission dealt with issues related to learning and the learner, curriculum, evaluation, and educational policy. Those principles that applied to learning and the learner and are the most relevant to our work were the following:

- learning involves the active participation of the learner;
- learners have a variety of learning styles and they learn at different rates;
- learning is both an individual and a social process (BC Ministry of Education, 1990, pp. 9-10).

Plans for the implementation of this new program were gradual. The implementation began in the primary grades, but teachers in secondary schools felt the pressure to begin to consider some of the implications of the new program. Although there were guidelines and policy statements, there were few specific details. Teachers were searching for avenues to pursue some of the new directions put forth in the document. Finding solutions within the local and specific context of a school was one way to address these new directions. It was in the broad educational context in BC that several secondary teachers approached the university about the possibility of engaging in some professional development activities related to student learning.

The project described here began in October 1991 in a middle-class, metropolitan school. It began as an initiative of several members of the school's professional development committee with an invitation to the university educators to lead two staff professional development days devoted to the issue of improving student learning. After some discussions with the professional development committee, where the university educators stated their strong opposition to one-shot professional development days, there was an agreement that these days should be conceived of as the first step in a longer-term professional development process. At the end of the second day a group of nine teachers expressed an interest in continuing to meet regularly with the university educators to explore further some of the issues related to student learning that were discussed and demonstrated in the workshop sessions during the two days. These nine teachers and four university educators then constituted the initial membership of the Learning Strategies Group, and they decided to meet weekly to discuss and develop teaching strategies that were to be aimed

at increasing the students' interest and their level of involvement in their learning.

The nine secondary school teachers each had at least five years of teaching experience. The group comprised four English teachers, a social studies teacher, a psychology teacher, a science teacher, and two teachers in an alternate school who taught all the school subjects. In the first year of the project four university educators were in the group, including ourselves. The university educators all had previous experience teaching at the secondary level. The two authors continued their involvement in the project throughout the five years.

Participation in the group was on a voluntary basis. The meetings were open to all teachers in the school who wished to join, even on a limited basis. The primary purpose of the group meetings was to discuss teaching strategies and to find new and interesting ways of encouraging students to become more active in their engagement with school learning tasks. The teachers brought to the group anecdotal descriptions of the strategies that they had tried in class, or they discussed possible plans for topics that they intended to teach. These narrative accounts, based on classroom experiences, became the starting point for the group conversations and provided the basic structure for each of the participants to engage in a form of collective reflection or inquiry into specific teaching and learning episodes.

Although the initial contact from the school sought some assistance from the university educators to present some ideas on improving student learning, the primary agenda of the university educators was to establish a longer-term structure for continuing professional development along the lines of the PEEL groups in Australia (Baird & Mitchell, 1986; Baird & Northfield, 1992). Furthermore, the teacher educators expressed an interest in documenting and analyzing the processes involved in establishing and maintaining such a group. Once the teachers understood our purpose and methods for doing this, Gabriella tape-recorded and transcribed notes from each meeting (summaries were given to all the participants at the next meeting). She also interviewed the participants twice in the first year and once a year in the following two years. The interviews were tape-recorded and transcribed as well. These transcripts and extensive field notes from the meetings provided much of the data we used in the following account of the project.

Establishing and Maintaining the Learning Strategies Group

In this section we examine those features that we think now (five years after the LSG was established) were important both in the critical first year of the project and in its continued existence. We also look at some of the changes that have occurred in LSG over this period.

Establishing Routines

The first few meetings were devoted to the formation of routines and to identifying issues of substance related to student learning. The routines discussed involved decisions about chairing the meetings, agenda, confidentiality, when and where to meet, and how often to meet and for how long. The participants were also aware of the varying interests of each member and ensured that a range of issues were addressed.

The participants chose to meet at the school in the morning before the teaching day started. The group started to meet in the middle of the school year and thus had to find times to meet off timetable. Moreover, two of the teachers participating in the group taught in an alternate school, which meant that finding time to suit everyone's schedule was particularly difficult. The teachers decided to meet before the school day for 45 minutes once a week. Although this was inconvenient for those who lived far from school or for parents with young children who did not have child care this early in the morning, they were all keen to come, and meeting attendance was high.

Toward the end of the first school year the administration approached the participants in the project and offered to schedule common nonteaching blocks so that a meeting time could be held during the school day. The teachers rejected the offer, for two reasons. First, this would eliminate participation of the teachers from the alternate school, and the teachers felt strongly that any teacher who wished to participate in the group should not be excluded. The second reason was that the teachers felt that if they met on timetable they would lose some of their autonomy. They maintained that meeting on their own time, coming before school started, or meeting over a weekend allowed them to have complete control over the agenda, the issues discussed, the pace of the project, and its directions.

As part of establishing routines the group had to decide how meetings would be chaired. The teachers decided to rotate the role of chair every four weeks. This decision is different from other similar projects (Baird & Mitchell, 1986) and thus created an interesting situation with both advantages and disadvantages. The main advantage was that because the teachers served as chair for one month, each became more attentive to the needs of others in the group. In this way, all the participating teachers became more aware of the needs of their colleagues and tried to ensure that these needs were addressed. A second advantage related to the responsibility of the chair to liaise between the teachers and university educators, so this was shared among the teachers instead of being the responsibility of just one teacher. This feature also enhanced the feeling of a cohesive and collegial group. The main disadvantage lay in the difficulties associated with establishing long-term routines for initiating an agenda or other pre-meeting plans. In most cases there was little discussion prior to the meeting about its direction and agenda. Thus long-range planning was hard to accomplish. A second disadvantage lay in the lack of time and structure for a single chair and the university educators to reflect on the meetings outside of meeting time. In spite of these disadvantages, the teachers wished to maintain the rotation of chair because they felt it minimized the hierarchical differences among the participants in the group meetings. For this latter reason the university educators chose not to chair any of the meetings, maintaining that the teachers should determine the directions and substance of the meetings.

There were many discussions about routines at the beginning of the project; however, these procedural discussions continued throughout the years so that the established routines could be modified in order to meet new concerns and needs. For example, the participants decided to meet once a week for the first year, then in the second year moved to once every two weeks. When there was

a particular need extra meetings were called. At the end of every school year there was a full-day meeting where both the structure and substance of the year's meetings were examined. The participants analyzed the process they had been involved in, looking at the strategies that the teachers presented in the meetings and at the future directions of the Learning Strategies Group.

Establishing Roles

As early as the first meeting and throughout the project the teachers perceived their main role and responsibility in the meetings as sharing teaching practices. It was the teachers who directed the deliberations; they brought anecdotes from their classrooms, which resulted in various group members raising questions and concerns about teaching and learning. The teachers were willing to share with the group both successes and failures. Through sharing their teaching practices teachers (and university educators) engaged in conversations about the nature of learning and what specific teaching strategies were used to enhance students' active involvement in their classroom.

The university educators perceived their main role as supporting the teachers. They brought their experiences, knowledge of research and relevant literature, and knowledge of similar projects to the deliberations. Another role the university educators played was to document and analyze the process within the group and supply summaries of the meetings and the teaching strategies that were discussed in the meetings. These summaries provided a tool that had a dual purpose: to represent the teachers' accumulated knowledge, and to document the professional development process the participants were involved in. One of the university educators (the first author) also conducted interviews with the participants, which provided the time and opportunity for the group members to examine their involvement in the Learning Strategies Group.

Throughout the first year the teachers occasionally referred to their uncertainties about the university educators' role in the group. It took them time to realize that the university educators had no hidden agendas or interests external to participation in this professional development endeavor. The long-term commitment of the university educators to the project convinced the teachers.

There was no clear definition of roles at the outset of the project. In the initial meeting the university educators said that their purpose was to support teachers who wished to explore their teaching, focusing on students' active involvement in their learning. Two of the university educators had a clearer idea of what this support might look like (because of their previous experience in another professional development project—PEEL). The teachers perceived their own purpose (exploring their practice) and did not state it in terms of defined roles in the group. The university educators were clear from the initial meeting that they did not want to chair the meetings. They wished the teachers to be in charge of the meetings, their content, agenda, and direction.

The teachers decided in that same initial meeting that they wished to share the responsibility of chairing the meetings among themselves. Yet at the outset, the specific role of the chair was not defined or prescribed. The chair took the responsibility of ensuring that teachers who wished to speak had the opportunity to present their material in meetings. However, the chair did not see his or

her role as setting the agenda prior to the meeting or discussing the content of the meetings or their structure with the university educators. The roles of the participants were constructed and defined in the context of the meetings, as opposed to a formal, a priori structure. This allowed each chair to identify how he or she attended to the wishes and needs of the other participants. It also allowed flexibility in running the meetings. Therefore, on occasion the meetings focused on the analysis of the group processes and directions, whereas in other occasions the meetings were geared to discussions of specific teaching strategies. At other times the chair requested early notice from teachers who wished to present in the following meeting, so that the time could be divided to ensure enough time for each presenting teacher. The university educators' role thus was not to plan the meetings or their agenda, but to respond to the topics and deliberations in the meeting.

At the end of each school year different, longer meetings were held in which the participants examined what they had discussed throughout the year and made decisions about the following year. The university educators chaired these meetings and negotiated their agendas with the participants before the meetings. These meetings were more theory-oriented, focusing on abstractions more than earlier discussions of each specific teaching strategy. The participants looked for common themes and threads within their conversations in the weekly meetings. This focus provided the context for discussions of purpose and further directions to be pursued in the following year. These longer deliberations also pointed to the common understandings of teaching and learning the participants shared.

Group Dynamics

From the first meetings the group never lost sight of its primary purpose, which was to focus on sharing and discussing teaching strategies. The participants discussed subject-specific topics, generic teaching skills and strategies, metacontent (e.g., discussions of the relationship between theory and practice), and the process of professional development, in which the participants were involved. The group conversations consisted of descriptions of these strategies aimed at enhancing the students' active involvement in the learning environments the teachers created.

In the first several months of meetings teachers discussed strategies that they had already tried and mostly those that were successful. During those meetings the participants linked these strategies to their own subjects and to generic teaching strategies with which they were familiar. Gradually, over time, the teachers added two new dimensions to the deliberations. First, they began to share difficulties, failures, and dilemmas; second, they used the time in the meetings for planning lessons and units. This slow shift in the kinds of materials and issues raised for discussion was perhaps a result of the development of a collegial and supportive atmosphere where the teachers felt safe to take risks and share their uncertainties with others.

As one of the teachers said in the second interview,

> I found I could use quite a few of the things [that were suggested in the meetings].... I find the stimulus of the group really helpful in looking at my techniques and values and at things that I want to do. (18.6.92)

Another teacher phrased the merit of the meetings differently, focusing on questions she now asks herself in her planning:

> I now make a conscious effort to do more of it [focus on active learning]. You constantly ask yourself' Is there a point to this [activity]? Is it a part of learning? Does it make sense? (9.3.92)

A third teacher discussed the impact of the group meetings on her teaching:

> I did that [teaching literature] with much more purpose and direction because I thought about it in the group. I defined my purposes more clearly, and I had seen that it was worthwhile. So that, I have already done it [taught the unit before], now I can talk about it. [My teaching] was directly in response to the group. (11.3.92)

Although the teachers were aware of the value of discussing and sharing teaching strategies, an analysis of the strategies indicates that the teaching practices discussed in the meetings also were characterized by a common understanding of good teaching and learning. The participants all saw learning as a process in which students ought to take an active part. Thus the discussions further clarified the participants' understanding of a particular perspective of learning, which Barnes (1992) describes as "active learning," that underpinned the discussions. Therefore, the teachers' choices of teaching strategies tended to focus on those that contributed to this perspective of learning. In the interviews the participants concurred that they continued to come to meetings not solely for the teaching strategies that were discussed or for the support they received, but also for the opportunities to discuss learning and teaching in more general terms.

The deliberations in the meetings also reflected the participants' teaching backgrounds and interests. Group dynamics played an important role in mediating the nature and substance of the discussions during the meetings. Heterogeneity (having participants who taught a variety of subjects) allowed teachers to discuss both a variety of subjects and generic learning skills, using examples from different school subjects. However, heterogeneity resulted in situations where some teachers' needs and interests were put aside in order to answer those of other teachers. It also meant that at times teachers needed to translate and modify what was reported in the meeting to fit their own subject areas.

From the second year on the LSG became a more homogeneous group, as most of the teachers taught humanities. A homogeneous group meant that the teachers shared a more common background and knowledge of a specific field of knowledge. This led to discussions of subject matter that were at times subject-specific. Such a homogeneous group tended to lack the variety and the diversity of perspectives that were present in the first year. Thus the group dynamics and make-up influenced the direction of the deliberations and the content of the meetings.

Through the deliberations in the meetings the participants began to develop a language and a repertoire of examples to discuss the issues brought to the table. They slowly developed a common professional language that allowed them to examine, discuss, and deliberate on their own teaching practices. This common language allowed for a clearer form of communication, which seemed

to be a contributing factor in making this professional development endeavor so meaningful to the participants. One example that illustrates this deliberative process for creating a common language was the joint construction among the participants of how a sociogram could be used in several different subject areas. A sociogram is a visual diagram that allows students to represent relationships between people, events, or concepts. This usage extends the more traditional function of a sociogram, which mapped social interactions between people. It was first introduced to the group meeting in the context of teaching *The Hockey Sweater* (Carrier, 1979) to a grade 9 English class. The purpose was to show the nature of the relationships between characters and events. Later, another English teacher used the same strategy, this time in grade 8 when teaching *Lives of Girls and Women* (Munro, 1971). This time the task was to compare the two main characters using a sociogram to depict the progression and development of the relationship between these characters. The use of a sociogram was discussed a few months later when a grade 11 class studied the novel *The Edible Woman* (Atwood, 1969). The students were asked to use a sociogram to depict a character and explain how society perceived such a character and how all the characters in the novel were linked. Finally, a social studies teacher extended the use of a sociogram in grade 10, when the students were asked to summarize the chapter and to map the specific themes and concepts in terms of the content of the chapter. As demonstrated above, teachers used sociograms in different contexts, subjects, and grade levels. Each time they used them they brought the specific examples to the discussion. The purposes, refinements, changes, and techniques were examined, discussed, and critiqued. Thus referring to the use of a sociogram became a part of the common language among the group participants, representing both the instances where it was used and the discussions that accompanied these instances.

Defining Features of Communities of Inquiry

Bereiter and Scardamalia (1993) introduce the notion of a "knowledge-building community" as an educational strategy for "producing a school environment that supports development beyond what comes naturally [and] is what we must discover if we are to educate for expertise" (p. 199). They see this approach as an alternative to the two polar instructional approaches of teacher-directed didactic instruction versus student-directed discovery learning. They draw on other examples of KBCs—most notably the scientific research group and other disciplinary-base communities in the social sciences and the humanities, and also industrial firms that have research and development groups for pursuing inquiry. For them the participants in a KBC possess the following characteristics:

- they share their knowledge;
- they support one another in knowledge construction;
- they develop a kind of collective expertise that is distinguishable from that of the individual group members;
- they develop and engage in progressive discourse;
- they demonstrate respect and recognition for peers.

We think these criteria also represent an excellent starting point for our deliberations about the defining features of a community of inquiry as reflected

in the LSG project. Thus we examine some of the features of LSG in terms of these criteria.

Sharing Knowledge

It should be self-evident from the above description of the establishment and functioning of LSG that one of the prime values that permeated all our activities was that of sharing experiences, insights, frustrations, and dilemmas. The meetings were deliberately organized to facilitate this type of sharing. A question might arise as to the nature of the knowledge that was being shared. Although we think this is an important question that is being addressed by a number of scholars in the field (compare Fenstermacher, 1994; Richardson, 1994), we would agree with Bereiter and Scardamalia's (1993) position that the underlying psychological processes of learning something new should have a number of similar features even across a variety of contexts — be it scientists in a disciplinary community, students in a classroom community, or teachers and teacher educators in a professional development community. Hence we conjecture that some of the characteristics and dynamics of these varied learning environments will remain constant even though the nature of the knowledge generated by these communities will be quite different. As suggested above, the status of the knowledge generated by LSG is still probably best described as a form of "craft knowledge" (Grimmett & MacKinnon, 1992) or "practical knowledge" (Fenstermacher, 1994).

Support in Knowledge Construction

The important role played by supportive colleagues in community-like settings has been documented by many others (Barth, 1991; Oakes & Quantz, 1995; Sergiovanni, 1994). However, it is important to try to understand better how this supportive environment assists in the construction of a type of knowledge that would probably not occur in the absence of such a community. In the case of the LSG, teachers brought specific examples from their practice to the meetings, which provided an opportunity for the participants to engage in a form of deliberative inquiry as they either collectively analyzed what did happen (as seen through the eyes of the teacher reporting on the effects of trying a particular teaching strategy) or created a type of group "thought experiment" focused around what might happen if a particular teaching approach were employed to teach a particular set of concepts or procedures.

These activities bear a family resemblance to some of the processes of knowledge construction described by Schön (1983, 1987) in his two books on the development of professional knowledge—a process that he characterizes in terms of an ongoing inquiry into one's practice. "Reflection-on-action" is the term Schön uses to describe situations where professionals examine past performances and make conjectures about preferred courses of action. In the case where the LSG group members deliberated on plans for future lesson activities, Schön likens this activity to experimenting in a "virtual world," much like the architect who uses a sketch pad to experiment with different design features. The context that Schön has drawn on in the exemplary cases in these two books is that of individuals learning to become "reflective practitioners," and hence the support in these contexts is primarily provided by "coaches" who endeavor to model and explain aspects of the practice under consideration. This situation

differs in some important ways from that experienced by the LSG participants in that there were no novice teachers in the group, so the coaching metaphor is not really appropriate. Another way of thinking about this setting is that the group provided multiple coaches to analyze the events under consideration and to provide suggestions for possible follow-up activities (Brandes, 1994).

Collective Expertise

By "collective expertise" Bereiter and Scardamalia (1993) mean the development of a type of knowledge that is distinguishable from what is constructed by the individual group members. That is, the focus is on knowledge building as a community endeavor. For instance, many of the specific examples of reflection-on-action discussed in the above sections such as the use of sociograms, incorporated not only the expertise of the individual teacher (explaining her or his particular use of sociograms) but they drew extensively on the accumulated wisdom of earlier group discussions. Although the particular application of some teaching strategy is a personal process, it was enhanced, elaborated, and ultimately codified by the reflective conversations of the group. One university educator said in an interview,

> The whole business [of the meetings] is beginning to move beyond the specific ... beginning to generalize... to become more reflective about the general aims rather than the kind of specific incident. (6.4.92)

As Castle, Drake, and Boak (1995) pointed out when discussing their experiences with a collaborative professional development group, "We discovered for ourselves that sharing is a powerful strategy for facilitating transformation in perspectives" (p. 259). We think that this transformation process can be best achieved through the kind of community of inquiry we describe.

Progressive Discourse

The notion of progressive discourse entails the development of a language and a way of practicing that "motivates inquiry and transforms its results into knowledge" (Bereiter & Scardamalia, 1993, p. 209). It also leads to a recognition on the part of the group members that their current understanding of some phenomena represents an advance over their earlier efforts. Our earlier discussion of the LSG developing a shared language that stemmed from their discussions of teaching and learning is an example of progressive discourse. Furthermore, the above discussion of the sociogram provides another example of this shared experience and discourse. The later discussions about sociograms relied on previous deliberations about the role of sociograms as a teaching tool. Thus suggestions for modifying the sociogram technique to suit new contexts and purposes were linked to previous presentations of sociograms. The group developed a kind of shorthand that captured their earlier discussions and enriched the new ones. In this manner, groups like the LSG can generate a form of knowledge that can be codified and made available for other teachers to use as they see fit. This is exactly what the PEEL teacher groups have accomplished over the past 10 years as summarized in Baird and Mitchell (1986) and Baird and Northfield (1992). This process of codifying PEEL's progressive discourse occurs on a continuing basis through the publication of regular newsletters.

Respect and Recognition for Peers

This characteristic may be considered one of the virtues of any effective community, whether it be an elite scientific research community or a group of grade 10 students engaged in a social studies unit on the French Revolution. We think that this characteristic is most probably a necessary condition to have in place before many of the other community features described above will evolve. For example, in our project the move from sharing successes to discussions of failures and difficulties is one of the indicators of development of a community of peers who trust and respect each other. Teachers in the LSG invited each other to observe them in action in their classrooms as they endeavored to implement the strategies that were discussed in meetings. Another indicator of the degree of trust and respect for each other was apparent in their enthusiasm for team teaching with each other as they experimented with different teaching strategies and different models for organizing curricular materials. In concluding this section, which briefly outlines the features or characteristics of a community of inquiry, we think that Castle et al. (1995) succinctly summarize the importance of several of the above criteria with the following description of their experience in a collaborative project: "Through dialogue, we transcended the limitations of our own experience and values" (p. 259).

Conclusion

The Learning Strategies Group, consisting of teachers and university educators, is one example of a partnership between colleagues from two institutions. The participants developed this community over an extended time. For Sergiovanni (1994) communities are "collections of individuals who are bonded together by natural will and who are together binded to a set of shared ideas and ideals. This bonding and binding is tight enough to transform them from a collection of 'I's into a collective 'we.' As a 'we,' members are part of a tightly knit web of meaningful relationships" (p. xvi). The participants of such a community usually share a common place and over time come to share common sentiments and traditions that are sustaining. When describing a community Sergiovanni proposes "to speak of community by kinship, of mind, of place, and of memory" (p. xvi).

In this article we examine the establishment, development, and dynamics of the LSG, and demonstrate that it shared many of the characteristics of a community of inquiry. The participants shared their knowledge; supported one another as they made sense of their practice. Through the deliberations and progressive discourse they developed a collective expertise that constituted a form of theorizing about their own teaching practices and their students' learning practices. The participants in this community shared an understanding of what good teaching and learning entailed, and more importantly shared an interest in deliberating about and experimenting with their understandings of teaching and learning in the context of the group discussions. The meetings provided the structured environment, and the participants provided both the substantive issues and the support and validation for an ongoing process of inquiry into issues and questions about teaching.

Although the value and importance of collaboration between school and university educators aimed at promoting this type of joint inquiry into practice have long been recognized (Cuban, 1992), perspectives have also differed on the nature and role of theory in informing practice in such settings (Cochran-Smith & Lytle, 1993). There were few discussions in the meetings about the theories of learning presented by the teacher educators at the initial workshops. In the weekly meetings teachers presented incidents from their classrooms, and participants engaged in conversations about these incidents, occasionally mentioning similarities to other incidents and contexts. These deliberations were about practice, and can be considered as abstractions that were anchored in the teachers' practice. Thus, in this localized context, the participants were theorizing about teaching and learning, about change, and about the collaborative process in the group. We think that one of the major factors that promoted this type of personal theorizing was the group ethos, which encouraged the teachers to take risks, to try new strategies, to use the group to debrief their teaching experiences, and to modify the strategies for the next time they used them. Teachers translated and linked strategies from one content area to another. These were then often discussed in terms of more procedures. In this way the experiences in the meetings combined with their past repertoire of practice to inform and modify the theories of learning and teaching held by each of the participants. We think that differentiating between private and public theories is a helpful way of trying to understand the participants' attitudes and views of theory and practice (Fenstermacher, 1994; Richardson, 1994).

The teachers initially perceived the more formalized, public theories as remote from their practice. At the same time, they perceived the group discussions, which consisted of abstracted (or, we would argue, theoretical) accounts of their practice as relevant and important. In other words, these group deliberations enabled teachers' private theories to become more public, albeit restricted to a particular context (Brandes, 1995). Although this process of testing the utility of different teaching strategies in various pedagogical contexts demonstrates the generative nature of theories and proved to be of value to the participants, this type of teacher knowledge nonetheless remains localized and lacks many of the characteristics that we normally associate with formal knowledge (Fenstermacher, 1994). Drawing on our experiences in this group we would argue that theory, whether it stems from external, systematic research studies or is based more on the authority of personal experiences (Munby & Russell, 1994), has the potential to enable teachers and teacher educators to understand better their own practice, and conversely to adapt and modify the theory to fit better the unique educational contexts in which they are operating.

The Learning Strategies Group is one exemplar of a community of inquiry that served as a professional development tool for its members. It was clearly a context in which both teachers and university educators explored issues of teaching and learning that were pertinent to their practice. However, many questions about such communities of inquiry remain. For example, what kinds of shared interests can serve as springboards for establishing communities of inquiry in schools? What support mechanisms are needed to enhance and sustain such communities of inquiry? Finally, what are the implications to the

culture of the school (particularly secondary schools) where such communities exist?

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Teacher Development for Conflict Resolution

Drawing from research literature and participant observation in one urban public elementary school's School Development Project, this article illustrates the occasions for teacher professional learning that may be created by a collaborative reform process. In particular, the case study describes teachers' planning deliberations regarding school discipline practices and conflict resolution efforts involving students. The discussion highlights the relationship between teachers managing conflict (and thus learning) in their own democratic planning and students' opportunities to practice new roles and skills for self-discipline and conflict management. The article challenges the common reliance on quick-fix approaches to both teacher development and conflict management in schools.

Basé sur l'étude de la documentation de recherche et après l'observer les participant(e)s d'une école publique élémentaire actifs dans un Projet de développement scolaire, cet article démontre les nombreuses occasions de développement professionnel qui sont possibles grâce au processus réformateur qu'est la collaboration. Plus particulièrement, nous décrivons le processus de planification chez les enseignants et les enseignantes qui discutaient les pratiques de discipline, de gestion et de résolution de conflits à l'école. Cette discussion met en évidence la relation importante entre les enseignants et les enseignantes qui œuvrent à promouvoir la résolution de conflits (par conséquence, l'apprentissage) dans le cadre de leur propre planification démocratique avec la chance qu'ont les élèves de jouer de nouveaux rôles et de pratiquer de nouvelles habiletés qui favorisent la discipline personnelle et la résolution de conflits. L'article se méfie des approches simplistes "toutes cuites" en ce qui concerne le développement professionnel des enseignants et des enseignantes, et la gestion des conflits dans les écoles.

Introduction

One problem that draws teachers to professional development is the challenge of resolving conflicts within the staff, among students, and between teachers and students. In some schools educators are concerned about how to assure sufficient safety and stability in the school environment as a prerequisite for learning. At the same time there is a need for educational innovation—for example, how to improve diverse students' opportunities to learn skills and concepts relevant to managing conflict in a pluralistic, imperfectly democratic world. Many of the common initiatives in the area of school conflict resolution are low-risk and perhaps low-impact, because they focus on safety and stability at the expense of educational innovation—on reducing the visible symptoms of student conflict rather than substantially challenging the prevailing patterns of adult behavior, curriculum, or school organization that may ignore or exacerbate that conflict.

Paradoxically, both peacemaking and learning require the discomfort of confronting conflict. When things really matter to people, they provoke con-

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flict. As Keizer (1988) points out, "only in talking about nothing can we be sure not to arouse any controversy" (p. 11). In this article I draw on research literature and a case study of reform-in-progress in one school to illustrate a range of school-based learning opportunities that may influence teachers' development of knowledge, skills, and inclinations for handling conflict. In particular, the article discusses how teachers' engagement in democratic deliberations on professional matters may (or may not) facilitate their learning to create meaningful conflict-resolving learning opportunities for students.

Little (1993) points out the crucial challenge of professional development for school reform: in order to change learning opportunities significantly for students, teachers need to give voice to their own professional conflicts in order to learn themselves.

> The most promising forms of professional development engage teachers in the pursuit of genuine questions, problems, and curiosities, over time, in ways which leave a mark on perspectives, policy, and practice.... [Effective] professional development offers *support for informed dissent*.... To permit or even foster principled dissent ... places a premium on the evaluation of alternatives and the close scrutiny of underlying assumptions. (pp. 136-138, emphasis added)

Teachers in stressed urban public school systems have plenty of reasons for dissent and disagreement, because they face complex problems for which there are no easy answers. However, often such differences are papered over until they explode. The autumn 1997 conflict that provoked a province-wide teachers' work stoppage in Ontario, for example, reflected profound disagreements regarding the responsibilities of teachers that escalated into a heartwrenching social disturbance. That protest crystallized around a Bill (now law) that allowed the government to reduce educational costs by limiting teachers' in-school professional development and preparation time and controlling working conditions that had been negotiated with school boards (Carey, 1997; Janigan & Wilson-Smith, 1997; Mackie & Lewington, 1997; Small, 1997). Conflict highlights underlying interests and assumptions, thus presenting potential learning opportunities. How many such precious opportunities for conflict resolution and learning have been wasted in favor of simplistic "common-sense" solutions? Alternatively, how might educators' dilemmas and disagreements be constructively raised and supported in ways that would foster the careful creation and evaluation of alternatives, rather than deepening divisions and cynicism?

The concern over how to handle school disruption and violence is a prime illustration of Little's point about professional development for school reform: Educators model approaches to conflict for the children in their care while they stretch their own skills to create a safe and effective learning environment (Fennimore, 1997; Opffer, 1997). Extending teachers' "positive liberty" to confront conflict directly can be risky and requires considerable skill to facilitate, but it allows diverse individuals to participate in resolving fundamental problems (Dietz, 1989).

School personnel often respond to students' conflict with an odd conjunction of laissez-faire and coercion, depending on the participants and the form of the problem (Clifton & Roberts, 1993; Pepler & Craig, 1994). Such diagnosis-

and punishment-oriented programs are difficult to administer fairly: for example, they may inadvertently target nonwhite and working-class males who get into highly visible fights, rather than the broader range of girls and boys who participate in less visible shunning or bullying of classmates (Bergsgaard, 1997; Noguera, 1995; Slee, 1995). So-called zero tolerance policies and violence prevention programs often reflect an emphasis on control rather than longer-range learning goals. With the good intention of protecting safety and efficiency, even conflict resolution education initiatives may be coopted by the "powerful logic" of hierarchical school management: this gives neither students nor teachers much room to disagree constructively, to learn, or to create alternatives (Deutsch, 1993).

Conflict resolution initiatives that focus on censoring conflict and preventing visible student violence, such as those highlighted in the case study below, are initially attractive to teachers for important reasons. However, these quick-fix approaches can impede adult learning (staff development) as well as equity and student learning. Avoidance of conflict in teacher decision-making bypasses an important opportunity for teacher learning, and thus for innovation in education for student conflict resolution and learning. The case study that illustrates these tensions arises from my one and a half years of participant observation in a collaborative school improvement initiative in an urban elementary school called Maple School.[1] Before discussing what I learned, I describe the Maple School setting, the particular school improvement initiative in which Maple participated, and my own role in Maple's school change process and this inquiry.

Background: The Setting

Maple Elementary School is located in a poor, working-class urban neighborhood several miles from the shiny renovated downtown of a midwestern United States city. In spite of being racially and economically segregated, it has been known as one of the "better" schools in the system because it is well managed, with a relatively stable and committed staff that has shown willingness to engage in a series of reform projects. When one enters the school, one sees bright displays of student work on the walls, clean and quiet hallways, and posters inviting community members to frequent special programs planned by staff and parent volunteers.

Ethel Green, Maple School's principal, is known as an innovative leader throughout the district and beyond. When invited to do so by the district administration, Ms. Green and her staff accepted with enthusiasm the opportunity to participate in the initial pilot of a district-university collaborative School Development Project in four local city schools. Ms. Green, two teachers, and a parent from Maple School went to Yale University for a weekend of training in February 1992. On their return they immediately began communicating with stakeholders in their own school community about this participatory school improvement initiative known as the *Comer process*. Beyond the orientation in New Haven, start-up funding was almost nonexistent. Most of the initiative was carried out in before- and after-school time volunteered by school staff. However, by the time I became involved at Maple in December 1992, the atmosphere in the school was already one of pride in their emerging ac-

complishments and energetic anticipation of school climate improvements that seemed to be underway.

The Comer School Development Project

Strengthening school community relationships for the sake of facilitating children's healthy development is the guiding notion of the School Development Project (SDP). This site-based school improvement initiative was developed by psychiatrist James Comer and colleagues at the Yale University Child Study Center and the New Haven, Connecticut public schools (Comer, 1980). The initiative, widely known as the Comer process, involves broadening school-based decision-making over a period of years, to include collaboration, consensus, and a no-fault stance among a wide range of stakeholders. Because they are consistently present, deeply engaged, and carry professional status, teachers and administrators are typically the most powerful participants in this collaboration, although parents and noncertificated staff are also involved (Carrano, 1990). The SDP relies on local school-university partnerships, rather than hands-on involvement by Yale staff, to facilitate the professional development and formative evaluation that underlie any school change effort. Because the Comer approach involves school-based processes rather than particular projects or programs, it leaves a good deal of the reform open to local interpretation at each school. This process of interpretation at one site, specifically as it is related to using and teaching conflict resolution, is the focus of this article.

The SDP's materials promote three mechanisms for change: (a) school-based decision-making by teachers and other stakeholders, (b) an emphasis on creating healthy environments for human development, and (c) an effort to broaden parent or family involvement in school life (Comer, 1988; Payne, 1991). All three SDP mechanisms are designed to raise, defuse, and democratically resolve the conflicts that are highlighted by change. The SDP processes rely heavily on committee work by teachers and others. Thus the creation of procedures and norms that involve teachers in airing and managing conflict can be seen as a central tenet of SDP. This article focuses on the first two of these elements that became prominent at Maple School in order to illuminate the possibilities and pitfalls of staff development for conflict resolution. First, I describe these two elements of Comer's SDP model as they were implemented at Maple School.

Democratic School-Site Management

A major element of the Comer process model is teacher involvement in major school-level decision-making roles. All three SDP mechanisms were operationalized at Maple School as committees made up mostly of teachers. The centerpiece of the model is a School Planning and Management Team designed to be an umbrella committee facilitating communication, coordination, staff development, and other whole-school efforts. To simplify the name and to connect this initiative with an earlier site-based governance effort in which they had participated, Maple School called this committee the Governance Team. The SDP design called for all other committees and stakeholders (including parents, teachers from various grade levels, community partners, the teacher's union, and other school staff persons) to be represented on this Governance Team.

Maple Governance Team meetings were held in early mornings before the school day began. This limited the involvement of nonteaching staff persons and even teacher representatives from some other committees. The principal attended about one of every three meetings and offered support behind the scenes. The committee's teacher chair had little leadership experience and no particular status at the school. Usually the active Governance Team at Maple School involved less than half a dozen teachers, meeting twice per month to plan and coordinate some of Maple's many special educational, fundraising, and community events. When the parent representatives attended, they often remained relatively silent and distant from the committee's work. This committee's actual activity looked no more like school "governance" than the activity of other committees at the school. Because its mission was broad, diffuse, and beyond the power and resources of the attending members to carry out, the Governance Team (in spite of its grand name) was seen by much of the school community as relatively ineffective or unimportant. Although teacher involvement in democratic decision-making was prominent in Maple's interpretation of the Comer process, in practice this ostensibly coordinating body made fewer decisions, of a less significant nature, than were made by more narrowly focused committees. School-wide staff meetings were also generally short and involved little joint decision-making. Thus teachers' democratic planning at Maple remained fragmented and piecemeal.

Fostering Healthy Environments for Human Development

SDP project schools are encouraged to establish a Mental Health Team comprising teachers, student support personnel, and community mental health professionals who work with the same population of children: the team's goal is to coordinate care of both individual students' special needs and whole-school community-building, to foster a healthy climate for human development. The Maple School community called their committee the School Support Team, to broaden its participatory nature and to avoid what stakeholders saw as Comer's overemphasis on psychological labeling. Maple later supplemented this committee with a (smaller) Intervention Assistance subcommittee, to improve efficiency and confidentiality in handling individual student needs. As is typical in the Comer process, the School Support Team (and its subcommittee) involved counselors from a community agency as well as members of the school staff.

The School Support Team quickly became well respected at Maple, because their mission and the impact of their activities were clear and visible in the school community. The teacher chair of the committee was skilled and well organized. This committee initiated school-wide programs and engaged in problem-solving, collegial advising, and coordination of efforts regarding individual concern referrals. A typical meeting agenda included a period of giving specific help to individual teachers with particular students, followed by a period for managing more general concerns including a fluoride "swish" program for dental health and educational community-building efforts such as conflict resolution projects. This was an active committee: most teacher members were kept busy at, and between, weekly before-school meetings.

My Role: School Change Facilitation and Open-Ended Inquiry

This case study is drawn from my participant observation at Maple School during the one and a half years when I was their School Development Project facilitator. I became involved at Maple School, after trading sites with a university colleague, 10 months after the Maple community's initial introduction to the School Development Project. The notion of a university partnership and university-based facilitators was added to the Comer process by the Yale Child Study Center staff around 1990. The goal was to use local university-based expertise to facilitate replication of school change projects, like Comer's original effort in New Haven, around North America. As with much of the SDP, the designated role of the facilitator was diffuse and unclear, leaving the role to be shaped by particular individuals and contexts. The activities to which I contributed were varied, from facilitating staff development sessions and the development of a peer mediation program, to attending countless committee meetings, to working with a particular teacher's class when she was having trouble, to helping to solve more temporary problems such as setting up computer equipment that had been left unused in a closet. I attended meetings of all SDP committees, but was most active on the School Support Team because of its concern for conflict resolution. I understood my primary responsibility as building professional development opportunities into teachers' SDP participation by creating spaces and guidance for skill-sharing and reflection on joint work.

I participated in informal teacher learning opportunities such as team meetings and project evaluations, not always as leader. I also facilitated some explicit professional development activities such as conflict resolution workshops (for teachers and students) and a series of lunchtime sharing sessions in which teachers discussed classroom problems. These activities were severely undermined by a tight schedule and a lack of discretionary funding: the project provided no supplementary funding for release from other duties, either for the Maple teachers or for me (a university professor). In significant ways the School Development Project was volunteer work for all of us.

Because Comer's collaborative model was first promoted by external forces as a way of provoking change, some conflicts that had been long since ignored or buried at Maple School regained salience. As an illustration, the first direct assistance the school staff asked of me early in the winter of 1992-1993 was to lead a workshop on conflict resolution for Maple's faculty. This was one of the more awkward, although interesting, days we ever spent together, and thus a good indication of the ambiguities of my facilitator role in this environment. Although I planned the day in consultation with the chairperson of an ostensibly representative teachers' committee, some staff came expecting to learn strategies for handling conflicts among their *students*, whereas others had expected to discuss conflicts among their *colleagues*. The rhetoric of collegiality and collaboration exaggerates the consensual aspects of school relationships and may obscure some miscommunications and conflicts that powerfully influence the school development that one can facilitate.

The Inquiry

I spent around three to four hours per week at Maple School, from December 1992 until June 1994, plus several follow-up visits during 1994-1995. My role exemplifies the often curious conjunction of participant and observer: I was an active participant in the meetings, politicking, planning, and experimentation that made up the school change effort, but I was also charged with facilitating formative evaluation of the project and staff development. I took notes, interviewed participants, and co-created and administered interim SDP evaluation surveys in spring 1993 and spring 1994. However, I did not conduct a controlled study. This article provides only a snapshot of reform-in-progress, because I was not involved at Maple until its SDP was getting underway, and was only there for 18 months of an ongoing process. Instead, my learning process at Maple School was something like that of the teachers—fruit of our joint and sometimes troubling engagement "in the pursuit of genuine questions, problems, and curiosities" (Little, 1993, p. 136). Far from being a distant or neutral observer, my commitment to the collaborative change process was built into my role. At the same time, I was not an insider and not on site full time. Perhaps because of being a (trusted) outsider, I could sometimes ask naive or impertinent questions that would start somebody thinking in a slightly different way. The remainder of this article discusses one of the strands of impertinent questions that emerged from my participation in Maple School's Comer process.

The Role of Conflict in Teachers' Collegial Decision-Making

Conflict—perceived incompatible objectives between two or more people or groups—occurs in any social system, including schools. Conflict resolution depends on the degree of interdependence (relationship) and of equilibrium (balance) among the parties involved, on the existence of predictable procedures for handling problems, and on mutual awareness of the problems and the possible solutions (Deutsch, 1993; Kriesberg, 1982). These ingredients for conflict resolution—understanding social relationships, understanding conflict and its consequences, and understanding or conducting various peacemaking processes—can be taught (Deutsch, 1993; Hicks, 1988; Horton & Freire, 1990). In addition, conflict stimulates rethinking: It can help to clarify participants' understanding of one another and of the problem about which they are disagreeing (Bickmore, in press; Hahn, 1996; Houser, 1996). Thus conflict in the process of school reform is a challenge, but it can be a golden opportunity for teacher learning, which can make space for improving student learning.

Where is the space for teacher learning in a reform such as the School Development Project at Maple School? Where and how can teachers find room to communicate, negotiate, and work democratically on the problems of improving their schools when the scope of their power to make decisions is increasingly narrowed by work overload, funding scarcity, and district and state regulation? Comer's theory, like several other optimistic approaches in the 1990s, asserts that collaborative processes are the ingredient that can empower stakeholders to make change.

> [A collaborative school reform process offers] a microcosm of a democratic space where issues of power don't get papered over but get struggled through. This

> can be hard and ugly, but ... Once they start cooking, you see that, of course, most teachers really want to teach, most parents really want their kids to get educated, and, guess what, kids want to learn. (Fine, 1993, p. 17)

On the one hand, the Comer process at Maple School did build a broader participatory space, demonstrably incorporating more voices—and thus more issues and their underlying conflicts—into the cacophony of school decision-making. The SDP committee mechanisms involved many meetings every week in which all who came were able to voice their concerns. More teachers (and a few others), more of the time, had more positive liberty to participate in meaningful decision-making, and thus in learning together, than they had had before the SDP process got underway at their school.

Two major themes of disagreement among teachers persisted while I was involved at Maple School. First, teachers struggled to find ways of handling conflict between teachers and students (viewed as discipline matters) and among students (disagreements and occasional fighting, which caused disruption). Second, teachers sometimes resented colleagues' varying levels of involvement in school community and reform activities. This conflict waxed and waned as people's different types of commitment reflected underlying differences in educational philosophy and priorities. The "collegial culture" promoted by the principal, the facilitator, a core of faculty, and the Comer mechanisms brought many such conflicts into the open and visibly channelled some of them toward mechanisms for democratic discussion and decision-making (Hargreaves, 1991).

For example, Maple's School Support Team managed to clarify and partly to coordinate various teachers' discipline practices, as well as to initiate more direct opportunities for students to learn social skills and conflict resolution. In the first two years of the SDP project, the School Support Team's work on conflict resolution steadily gained support from most Maple teachers. During the first half of many meetings, individual teachers brought confidential concerns regarding particular students they were having trouble teaching. Most of the time these problems emerged from patterns of conflict and classroom management difficulties. The Support Team offered personal and professional support for these teachers, giving detailed suggestions and feedback in addition to coordinating professional help and strategies for managing the particular children's needs. The school-wide efforts of the Support Team and the Governance Team began with small, surface-level activities such as special events and posters in the hallways. The activities of the Support Team, in particular, eventually developed more substance. For example, the committee facilitated social-skill-of-the-week lessons in all classrooms and started a peer conflict mediation program.

On the other hand, democratic decision-making took a great deal of time and energy that had been previously allocated to other pursuits at the school, and urban teachers are nothing if not overworked. If the increased and unfamiliar work roles associated with a teacher-driven reform project do not have clearly visible educational benefits, then they have the potential to aggravate existing subterranean divisions among members of the school staff (Gomez, 1989). For example, some Maple teachers felt disappointed that some of their

colleagues did not seem to contribute enough to the school improvement effort. The noninvolvement of some individuals or subgroups is often seen as evidence of apathy rather than as evidence of an implicitly exclusionary system (Keith, 1971). People tend to get involved in activities that embody the concerns they feel are most important and to avoid those they consider inappropriate. Rather than reconsidering whether their processes and activities were truly inclusive of a broad range of concerns and viewpoints, a few Maple teachers tended to blame some of their colleagues and community members for being less involved beyond their own classrooms. Collegial norms were such that most such complaints were made anonymously, for example, in a June 1994 written evaluation survey, but the sense of blame was pervasive in spite of a generally friendly school climate.

The population of active teacher leaders, and the topics they choose to take on, influences who will be interested in becoming involved in that joint work. The National Center for School Leadership noticed a similar dynamic regarding conflict and collaboration in a middle school where they worked: teachers who were able and willing to participate and to have influence in school leadership activities reported on a confidential survey that their school decision-making (conflict management) process was democratic and participatory. Others, who were silent or silenced in the process, saw the same school processes as autocratic (Polite, 1993). Thus Maple teachers who were less involved in the SDP efforts may have been dissatisfied with the ways Maple's Comer process participants handled the conflicts they considered significant. In the realm of conflict resolution, some teachers did not feel that the social-skill lessons were appropriate in their classrooms; others disagreed with the delegation of responsibility to students in the peer mediation program; and a few others had persistent distracting conflicts in their own classrooms that they were unable or unwilling to bring to the Support Team for assistance. Over time some of these professional differences were brought into the expanding circle of democratic deliberation at Maple School, stimulating passionate conversations and opportunities for collegial learning. Other conflicts were not aired openly during the 18 months of this study.

Professional development that might enable teachers to identify and deal with the educational shortcomings of their schools and classrooms would need to be deeply democratic (Warnock, 1989; Zeichner, 1991). The Comer process at Maple School did establish mechanisms for engaging some teachers in meaningful investigation and dialogue with colleagues. I attended countless meetings that included heartfelt and thoughtful conversation about school-, classroom-, and student-level concerns. People consistently reported that they learned from these opportunities. Most team meetings were in practice dominated by teacher talk: contributions from parent representatives and Principal Green, as well as outside collaborators, were often limited to particular topics, interspersed with relative silence. My assumption that Maple School's teachers did learn from these joint deliberations is substantiated by the way these conversations spawned countless spin-off and follow-up conversations (as well as activities). Furthermore, these busy urban educators "voted with their feet," participating beyond their required work hours because they considered the Comer process meetings worthwhile.

In some respects, however, the teachers' conversations in all of Maple School's SDP committees seemed to be remarkably similar and consistent over time. There were hours of subcommittee reports, and scheduling or budgeting discussions, regarding a vast array of special extracurricular activities. For example, a small group of teachers organized several short drug-awareness programs. Other activities took advantage of visiting experts, and there was a succession of special fundraisers and occasional evening programs. Most of the myriad projects were small-scale add-ons that did not seem to scratch the surface of regular educational practice in classrooms and corridors. There was little clear evidence of change in the work teachers performed in spite of the learning they reported.

In fact, the joint planning work itself was essentially an add-on: meetings almost always took place on teachers' volunteer time, before or after school and at lunchtime. Surely it is naive to expect that more profound changes would have been visible after two years. It is a testament to the power teachers perceived in this process that well over half of Maple's faculty (along with several parents, community service workers, and other staff) continued to volunteer their time to participate actively. Those who were active did this extra work because they felt they were learning and improving their school. On the other hand, my visits to classrooms, private conversations, and written survey results indicated that some teachers' concerns and difficulties were not being voiced, never mind resolved, in these forums. In particular, teachers' challenges with facilitating effective learning and discipline inside their own classrooms, and some questions related to racial and cultural differences, were almost never aired in public. Some conflicts remained unspeakable in this imperfectly democratic environment, so opportunities for learning and change were sometimes forgone. The quantity and quality of time allocated—on the margins of the school day in addition to teachers' regular loads—was insufficient for the development of the deeper comfort level and sophisticated deliberation skills that could have made more conflicts speakable, and thus more teacher learning possible, at Maple School (Solomon, 1995).

The Role of Conflict in Students' Opportunities to Learn

Conflict management is an important aspect of the hidden curriculum, the implicit lessons embedded in the ways particular student behaviors are valued and sanctioned. Discipline, the guidance and management of student behavior, is at the heart of school-based socialization. Because deeds speak more loudly than words, the processes of developing and enforcing school rules, and of grouping and sorting students, are powerful contributors to young people's understandings of themselves as members of society (Clifton & Roberts, 1993; Ingersoll, 1996). Children learn about conflict by observing the ways conflictual incidents are handled (and by whom) and by practicing and internalizing particular norms and roles in relation to conflict management. Teachers at Maple School wielded different types and degrees of authority in relation to students and their conflicts—sometimes in ways that facilitated students' gradual development of their own responsibility and authority, and sometimes in ways that insisted on dumb obedience.

Maple's teachers used a wide range of approaches to discipline in their classrooms, hallways, and schoolyard. When I first became involved at the school, a few teachers' discipline practices often ignored the tenets of good teaching such as the importance of clear explanations, gentle feedback, and guided practice. For example, it was a school rule that students walk silently in single file when moving along the hallways: many students in various classes persistently refused to submit to this regimen. Even when their teacher hurried up and down, shushing, herding, and sometimes threatening students, many such expeditions were anything but silent. In several classrooms obedience was emphasized at the expense of individual initiative or learning, and it seemed that a great deal of time was devoted to scolding children for "misbehaving."

The dilemma of guiding student discipline and conflict management while also maintaining a warm and inclusive environment was a consistent concern at Maple School. Critics point out that control-oriented and culturally bound violence prevention efforts may backfire by reinforcing mutual distrust among members of school communities and breeding additional resistance (Noguera, 1995; Soriano, Soriano, & Jimenez, 1994). Although Maple students were young, several of them did at times exhibit a developing distrust for teachers and alienation from school. Punitive and extrinsic sanctions tend to undermine young people's opportunities to develop self-discipline, skills, and an understanding of democratic citizenship (Schimmel, 1997). If behavior rules are negative, unexplained, or rigid, students may be provoked to subvert or ignore these expectations, especially when not under direct surveillance. Furthermore, such control-oriented approaches do not distinguish constructive resistance (e.g., clarifying procedures, correcting misinformation, or assisting peers) from other forms of "misbehavior" (Kearney & Plax, 1992). From these experiences, Maple students may have been internalizing implicit values that marginalize conflict, blame particular individuals for dissent, and/or assume conflict must be managed by powerful authorities.

Various responses to this challenge of student discipline and conflict management were frequently on the agenda of Comer process team meetings. At first, the Maple School Support Team tried a purely extrinsic behavior management strategy: Teachers were asked to distribute and take away "tickets" (redeemable for rewards such as candy) to students in the hallways if they "caught them being good" (or bad). Some teachers adopted this regime with enthusiasm, but about half of the staff participated reluctantly or not at all, considering the strategy disrespectful and/or ineffective. After several passionate discussions in meetings, the Support Team instituted a more developmentally oriented social-skill-of-the-week curriculum: The committee developed and distributed materials, and all teachers were expected to teach mini-lessons during a given week on, for example, sharing, listening, being respectful, or caring. Because this intervention took place behind classroom doors, it was difficult to assess the degree of teachers' participation and commitment. The lessons themselves may have had little effect on students, but the teachers' jointly negotiated decision to teach social skills rather than simply punishing misbehavior was evidence of a small conceptual shift. Many staff showed considerable pride in their work on this program, for example, on

surveys and by bringing out the materials to show to visitors who came to see Maple's SDP project.

After the Comer process gained momentum during 1993-1994, Maple's staff decided to try a more ambitious approach to conflict management education as an alternative to the regular practice of reprimanding students for eruptions of interpersonal conflict. The project was facilitated by a subcommittee of the School Support Team, in consultation with the Governance Team (which raised money for materials and to release staff for training). One of my responsibilities as facilitator was to coach the development of this peer conflict mediation program. Like many of the earliest (and still common) school conflict resolution programs, Maple initiated a cadre approach: a few students were identified and pulled out of regular classes for special conflict resolution training. A group of about 30 students selected by teachers from across the school were taken out of regular classes for three days of skill-building workshops, after which they were to serve as peer mediators at their school. Periodic pull-out meetings were arranged with a teacher advisor to reinforce skills and to encourage students' self-identification as peacemakers. This peer leadership cadre strategy is attractive because the training (for a few, not a whole school) is affordable, and the program could be instituted gradually without necessarily changing most teachers' regular routines.

Maple's new peer mediators made presentations to several classes to inform students and teachers about their new mediation service and to model nonviolent conflict resolution strategies. A few of the children who were trained never became active in the program, but several peer mediators began to serve in pairs on the playground at recess. Their role was to offer assistance to peers who were having interpersonal conflicts and (if the parties agreed) to follow a prescribed series of communication and problem-solving steps, assisting the children to negotiate resolutions to their own conflicts.

Maple's program did not choose model students to be mediators, which often seems to limit the influence of such programs and the willingness of many students to self-refer conflicts to mediation (Close & Lechman, 1997). Instead, Maple's staff chose a range of students whom they saw as carrying leadership potential, although that peer influence often had been used in negative ways. Thus a *small* group of students, many of them seen as troublemakers before the Comer process teams initiated peer mediation, gained a remarkable learning opportunity. Most of these children succeeded in the special training they received, becoming empowered and skilled to act on their own and others' behalf. However, the peer mediation program at Maple had a limited scope. Even with Maple's relatively inclusive approach to choosing mediators, the vast majority of students encountered alternative dispute resolution barely or not at all. About a third of the school population observed one introductory presentation in their classrooms, and a few individual students practiced assisted negotiation as clients (children in conflict who used the assistance of a peer mediator). Broader patterns of school curriculum, pedagogy, and control were not fundamentally challenged by the conflict resolution initiatives taken while I observed at Maple. Although a few students occasionally were practicing new skills of peer-facilitated negotiation, most Maple students, most of the

time, were still practicing isolated subskills and obedient behavior in exchange for tickets or teacher praise.

Like many school conflict management or violence prevention programs, Maple School's SDP conflict resolution efforts primarily involved narrowly focused training in social skills, supplemented by counselling, stricter punishment for certain offenses, and increased staff monitoring responsibilities (Pepler & Craig, 1994, Smith & Sharp 1994). Teachers' assumptions that children's (and not adults') inadequate skills were the heart of the problem were essentially unchallenged by SDP committee discussions, even while some individual teachers came to the Support Team for help with managing conflicts in their classrooms. The conflict management dilemma was not resolved at Maple School. It is understandable that the school staff would wish to put a lid on disruption and violence problems, but premature imposition of surface-level remedies may have avoided or exacerbated tensions without resolving underlying problems. It is not clear that small programs on the margins of schools (like those I observed at Maple School) can adequately address problems of teacher-student or student-student conflict.

Teachers and the young people they teach learn from what they consistently practice, for example from the responsibilities they fulfill in their schools and classrooms. They learn about interpersonal and social conflict from the roles they play, and are excluded from playing, in handling school community questions and problems. Maple students learned (sometimes in unintended ways) from the various and contradictory conflict management models they experienced regularly and from the behaviors they practiced frequently in school.

At Maple Elementary School, as in most public schools, the curriculum and the schoolday schedule are fragmented into predigested bits. Schedules, routines, and rules are similar in each classroom in the name of fairness and predictability even though the students are all different. As Maple's students acted out to varying degrees their alienation from or discouragement with this standard-model schooling, the school's staff responded with a dizzying array of discipline measures to achieve compliance with school norms such as silence, walking in gender-separated lines, independent work, and respectful demeanor. These quick-fix innovations required less time for serious debate and creative joint work, and they never touched the basic framework of school practice. Given the autonomy to avoid it and denied the time and resources to make it work, most Maple teachers, most of the time, chose not to delve too deeply into evaluative inquiry or democratic power-sharing (Wallace & Louden, 1994).

Professional Development and Conflict Management for Teachers and Students

Maple teachers face large classes of diverse students who often have tremendous developmental needs. I was often reminded of the paradox that a teacher can work hard and teach well and yet "still feel a profound sense of personal failure because the process of teaching is frustrating, unrewarding, and intolerably difficult" (McLaughlin, Pfeifer, Swanson-Owens, & Yee, 1986, p. 420). When they face difficult situations, teachers need considerable ongoing support and opportunities to learn, including inside their own classrooms. Ironi-

cally, because virtually every teacher faces this problem at some time, the Maple School SDP process steered clear of the classroom threshold, and thus avoided any direct confrontation between conflicting teaching and discipline philosophies. Therefore, the Comer process did not visibly change the roles played by most students or most teachers in relation to their students.

The nearly two years of school change activity I witnessed at Maple had little apparent impact on the regular routines, norms, and roles played out in hallways and classrooms. There is no provision in Comer's SDP model to assure teachers of either frequent constructive feedback or common preparation times for collegial exchange. The SDP approach did not *prevent* such collaboration, but Maple's teachers had no extra funding that could have provided time for truly in-depth joint deliberation and planning. Given this resource scarcity, confronting their fundamental questions and conflicts did not always seem worth the risk. Without the benefit of more space for confronting and dissenting on the most difficult questions, Maple's SDP teams often settled for quick-fix projects that never became part of the basic fabric of school life.

In the area of conflict resolution, one could argue that the Comer process did have some limited impact on teachers' understandings and behavior toward students at Maple School. When I arrived at Maple a few months after the SDP was initiated there, the school was a friendly place where conflict among adults was generally avoided. Teachers kept to their own classrooms, either sinking or swimming, and professional disagreements were largely unspoken. Conflict did exist, however, as became apparent in my first staff development meeting with Maple teachers: The Comer process did allow some of that conflict to surface as a learning opportunity for teachers. The disagreements, regarding levels of staff participation in school development and priorities for managing *student* conflict, persisted throughout the time I was there. Although enough consensus was achieved to initiate jointly the student conflict resolution efforts discussed above, these efforts were kept small and marginal by persistent philosophical and practical differences that were not all openly discussed among staff. To some degree Maple's staff did begin to organize more of their discipline practices around long-range goals of facilitating student learning and guiding students to take on positive responsibilities. This change apparently represented learning for some teachers, brought about through debate and dialogue with their colleagues. On the other hand, in this short year and a half, Maple's prevailing patterns of conflict management did not fundamentally change.

The unknown, the controversial, and the problematic are fuel for good conversation and the sparks that motivate inquiry for learning (Britzman, 1992; Graff, 1992; hooks, 1994). Critical thinking skills (among teachers or other learners) cannot be developed without critique and thus conflict. However, participants' diverse histories and relationships affect the degrees to which they feel safe and respected, even in an apparently open discussion process (Bickmore, 1993; Ellsworth, 1989; Kreidler, 1990; Rossi, 1996). In theory, Comer's model offers "support for informed dissent," which would facilitate teacher learning (Little, 1993). However, people's common aversion to conflict and the budget-constrained tight schedule of this urban school conspired to

limit the time devoted to truly open democratic discussion. Many of Maple's staff engaged enthusiastically in SDP discussion opportunities, in spite of the risks and personal effort involved, and reported that they consequently improved their understandings and skills as teachers. Other staff felt less welcome, or less able, to engage in these forums across differences in perspective. It is natural that teachers would fall back on "common scripts," handling conflict much the way schoolteachers have handled conflicts for generations, rather than live with unacceptably high levels of interpersonal and intrapersonal conflict in an already stressed urban environment (Metz, 1990).

Democratic inquiry and action in a conflictual context are, after all, not easy. Such a project requires a particular kind of professional development support, not technical skill training, because the problems are complex and require opportunities for adaptation and practice, but nonetheless some kind of catalyst and sufficient space for the constructive airing of contrasting viewpoints. Otherwise severe time constraints and the associated questions of power and money to reallocate that time get in the way (Solomon, 1995). Teachers in a stressed and resource-squeezed context will often avoid serious inquiry and evaluation. It is easier to look at students' conflict and to try to "fix" students' behavior than to understand or alter one's own institutionalized habits of conflict management.

Teacher professional development for conflict resolution would require: (a) new patterns of interaction: replacing norms of isolationist privacy with autonomous participation, and creating safe space for airing and managing dissent; and (b) sustained opportunities for democratic deliberation, resulting in teachers developing awareness of conceptual categories, alternative approaches to problems, and inquiry strategies. In effect teachers need much the same kinds of support for complex learning as do their students.

Conflict resolution is an example of complex learning that can facilitate other learning, and there are no short cuts. The case of Maple School shows that many teachers will seize and make use of such opportunities even when they are offered no time or extra resources and that their efforts can make a difference in their students' learning environment. Yet simply putting busy teachers in committee meetings together is by no means sufficient support for professional development. Insufficient time and support for conflictual conversation can stall and subvert any efforts toward inclusive participation or lasting school change. Equipping teachers with skills and mechanisms for managing conflict is a crucial element of helping them to create peaceful and challenging learning environments for students.

Note

1. All proper names used in the case study are pseudonyms.

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Leadership, Organizational Learning, and Selected Factors Relating to the Institutionalization of School Improvement Initiatives

Institutionalization of school improvement initiatives was examined using information gathered from 93 schools involved in school improvement projects. Teachers and administrators assessed their efforts at institutionalization of the initiatives and the overall effectiveness of their school. During the initiation period personal knowledge of successful experiences at other schools was associated with increased success in institutionalizing changes, whereas pressure from system personnel was less likely to be positive. The nature and quality of leadership behavior, the extent of collaboration, the alignment with school mission and division goals, and the degree of staff involvement were strong determinants of institutionalization and school effectiveness.

L'institutionnalisation des initiatives pour l'amélioration des écoles a été examinée selon l'information tirée de 93 écoles qui participaient à des projets d'amélioration scolaire. Des enseignants, des enseignantes, des administrateurs, et des administratrices ont évalué leurs efforts pour assurer l'institutionnalisation de certaines initiatives ainsi que l'efficacité générale de leurs écoles respectives. Pendant la période d'initiation, on associait la connaissance personnelle de telles expériences réussies dans d'autres écoles avec un succès accru de l'institutionnalisation des nouveaux changements. Cependant, les forces provenant du personnel au niveau du district scolaire avaient une allure moins positive. La nature et la qualité du comportement du leadership, l'étendue de la collaboration, l'alignement avec la mission de l'école et avec des objectifs du système scolaire et le degré d'engagement du corps professionnel déterminaient fortement le degré d'institutionnalisation et l'efficacité des écoles.

During the past two decades many school improvement initiatives have been informed by the effective schools research. Much of this literature, however (Scheerens, 1990, 1993; Scheerens & Creemers, 1989), is critical both of our understanding of how schools improve and of the stability of the improve-

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ments. The research on which this article is based was designed to address some of these issues. Our purpose here is to examine why and how schools become involved in improvement programs, as well as to explore the notions of relationships between organizational learning and leadership, and their relationship to successful institutionalization of school improvements.

In a previous article we addressed such issues as the reasons for a school's becoming involved in an improvement program, the nature and focus of the planning activities, the factors that influenced implementation of the initiatives, the key players and their roles, and some of the factors that contributed to institutionalization (Sackney, Walker, & Hajnal, 1995). In this article we briefly summarize our results and explore further the issues of leadership and organizational learning as they affect institutionalization.

We begin with a brief discussion of institutionalization, organizational learning, and leadership. The conceptual framework and research design are then outlined, with a description of the Saskatchewan School Improvement Program (SSIP), followed by a discussion of our findings and conclusions.

Educational Change and Institutionalization

Change is a complex process, and not easily understood (Fullan, 1993). Cuban (1992) referred to incremental and fundamental change. Fullan and Miles (1992) and Fullan (1993) spoke of first- and second-order change, whereas Louis and Miles (1990) distinguished between *change in* and *change of* an organization, with the latter involving cognitive, behavioral, and value transformations (Sackney et al., 1995). What Fullan referred to as "tinkering," or first-level change, does not alter the fundamental norms of the organizational culture. Second-level change, on the other hand, involves a radical transformation in which deep-seated values and norms undergo a paradigm shift (Kühn, 1962).

Holly, Wideen, Menlo, and Bollen (1987) suggested that change is a cultural phenomenon, and that the successful conclusion of the process of change is the restabilization of the organizational culture. Corbett, Firestone, and Rossman (1987) examined the role of "sacred norms" in teacher resistance to change and concluded that they give meaning to the teacher's work. A challenge to these norms, therefore, requires a traumatic integration of new meanings. In essence, the old culture has to give way to the new.

Another view is that change is a dynamic process that has no definite conclusion and no absolutely predictable results (Dixon, 1994; Fullan, 1993; Fullan & Miles, 1992). For organizations, then, institutionalization is characterized by the capacity for continuous change. Similarly, Louis (1994) contends that "research on how to change schools falls into a paradigm that might best be called managed change" (p. 4). She observed that most change is messy, uncertain, and circular; in many instances action precedes planning, vision follows activity, and leaders tend to be preoccupied with "minding the store" (pp. 4-5). This view is in keeping with the notions of chaos theory and postmodern thinking (Mitchell, Sackney, & Walker, 1994). Change and institutionalization, it would appear, are messier than researchers previously thought.

Change comes in four phases: initiation, implementation, continuation, and outcome (Fullan, 1991). All are embedded in each other, and although institutionalization may be the result, it has its beginnings in the initiation phase.

Institutionalization as a construct has at least three meanings. Yin (1981) used the term *routinization* to describe what happens at the end of the process: the appearance of new practices to displace the old. Miles (1983) saw institutionalization as an organizational process with a critical number of committed users necessary for it to occur; the individual is a key factor in successful institutionalization (Fullan, 1993). A third perspective views change from the vantage point of the individual user (Hord & Hall, 1986). When three user-related vectors—teachers' feelings about the innovation, teachers' behavior relative to the innovation, and the shape the innovation takes in practice—reach a critical level, institutionalization is said to have occurred.

Fullan (1991) concluded that the reasons for unsuccessful institutionalization were largely the same as those for unsuccessful implementation. Eastwood and Louis (1992) concurred, noting that there is a tendency for initiatives to stall in mid-implementation because of increasing resistance on the part of individual users. There appears to be a threshold that must be crossed during implementation before institutionalization can occur.

In a previous article we proposed that an "outcomes" subprocess be added to the construct (Hajnal, Sackney, & Walker, 1994), one that views change from a spiral rather than a linear perspective. Institutionalization can then be viewed as a continuous cycle of renewal and growth, a dynamic learning process manifested in an increased capacity for ambiguity and change (Sackney et al., 1995). What becomes institutionalized, then, is not change so much as the attitude toward change (Shakotko, 1995). Both the organization and the individual are enabled to think and work within new paradigms and are continually transformed as a result of their experiences.

The Learning Organization Perspective

Recent literature on change emphasizes the evolutionary and the dynamic nature of the change process (Fullan, 1991) as well as the importance of continuous learning and adaptation (Dalin, 1989; Louis & Miles, 1990; Senge, 1990). Between the primary user and the organization there exists a complex interrelationship of reciprocal influence (Sackney et al., 1995). Senge (1990) viewed change as an ongoing, dynamic process in which the learning capacities of the participants combine synergistically to create an increased capacity for growth.

Increasingly, attention is being given to understanding school change through the notions of "learning organizations" and "communities of learners." Garvin (1993) characterized the literature on learning organizations as "murky, confused, and difficult to penetrate" (pp. 78-79), and pointed to the utopian imputations and the near-mystical terminology of some scholars as being at least partly responsible. A well-conceived and actionable definition of the learning organization, he argued, would make the topic more accessible. Garvin himself defined the learning organization as one that is "skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insight" (p. 80). Learning organizations are adept at five management activities: "systematic problem solving, experimentation

with new approaches, learning from their own experience and past history, learning from the experiences and best practices of others, and transferring knowledge quickly and efficiently throughout the organization" (p. 81).

Kofman and Senge (1993) described learning organizations as "spaces for generative conversations and concerted action," where "people can talk from their hearts and connect with one another in the spirit of dialogue ... [to create] a field of alignment that produces tremendous power to invent new realities ... and to bring about these new realities in action" (p. 16). Like Garvin (1993), they argue that the concept of a learning organization can be both empowering and tranquilizing, and that a "learning organization must be grounded in three foundations: a culture based on transcendent human values of love, wonder, humility, and compassion; a set of practices for generative conversation and coordinated action; and a capacity to see and work with the flow of life as a system" (Kofman & Senge, 1993, p. 11).

A distinction needs to be drawn between learning organizations and the processes of organizational learning. In her study of organizational learning in an elementary school, Mitchell (1995) reviewed the literature according to psychological, sociological, organizational, and combined perspectives. According to the psychological perspective, personal attributes and propensities tend to shape the patterns of learning in an organization. The sociological perspective focuses on the importance of social constructions, interactions, and influences relative to collective processes. The organizational perspective attends to the influence of rules, roles, patterns, values, and practices whereby people make collective decisions about change and stability. Finally, Mitchell pointed to an integrated perspective resulting from the combination of "personal cognitions, organizational structures, and group norms; all of which contribute to a set of shared understandings about how information will be handled and how decisions will be made" (p. 26). This integrative perspective on organizational learning, she argued, is instrumental in studying situationally nested subjects.

In his work on organizational learning, Cousins (1994) considered the learning capacity of organizations as influenced and conditioned by nonrecursive environmental and organizational factors. Educational research, he argued, should make sense of, and learn from, the metamorphosis that occurs in organizations that "are extraordinarily open and forthcoming, thrive on experimentation and risk, tolerate ambiguity while at the same time are able to construct consensus interpretations and are driven to surface and eliminate hidden barriers to collective learning" (p. 37).

Dodgson (1993), like Mitchell (1995), held that interdisciplinary approaches and perspectives hold the most promise for deepening our understanding of diffused and shared learning in schools. "While there are areas of agreement," he wrote, "there remains a great disparity in the fundamental underlying assumptions of the different approaches, such as the differing focuses on outcomes and processes" (p. 390).

Kim (1993) characterized organizational learning as "dependent on individuals improving their mental models" (p. 44). In other words, we must learn to make our view of the world explicit and relevant to a given context.

Individual frameworks then become embedded in the world view of the organization.

To the research of others we would add from our own work the following behaviors as measures or indicators of extant organizational learning: engagement in professional learning and growth activities; critical examination of current practices; experimentation with new practices; sharing information openly and honesty; valuing the diversity of opinions; engaging in dialogue regarding teaching and learning; developing a shared vision; engaging in collaborative processes; engaging in self-reflection; learning from past experiences; sharing professional expertise among colleagues; asking for help when necessary; striking a balance between too much and too little change; and aligning the school's activities to its mission and the goals of the district.

The Roles of Leadership

An increasing emphasis on the individual as the unit of change constitutes a significant shift from the previous focus on the organization (Sackney et al., 1995). The role of the principal and central office administrators has received considerable attention. Schein (1992), for example, observed that "organizational learning is not possible unless some learning first takes place in the executive subculture" (p. 50). Rallis and Goldring (1994) noted that, whereas previously principals were responsible for program administration, they "are now charged with facilitating, enabling, motivating, and coordinating the empowered professionals in their building" (p. 3)—this in addition to working with parents and community groups.

If school improvement is to be achieved, principals and central office administrators must encourage teachers to participate in school governance (Sackney, in press). Block (1987) argued that empowering others is a state of mind. The trouble is, many administrators are reluctant to share power (Sackney, in press) and do not see the advantages of empowering those below them. Giola and Sims (1986) posited that "cognition is strongly implicated in organizational change. Adaptation to change can be seen, first and foremost, as a cognitive challenge ... developing adaptive capacity suggests the need for a more complete understanding of the nature of organizational cognition" (p. 351).

The more effective schools appear to be characterized by a culture that promotes teacher involvement. Both Fullan and Hargreaves (1991) and Sackney and Dibski (1994) employed the notion of collaborative cultures to describe schools where joint planning and decision-making existed. Smylie (1992) found that teachers were more willing to participate if their relationship with administrators was open, collaborative, and supportive, and less willing if their relationship was closed, exclusionary, and controlling. Senge (1990) argued that in a learning organization leaders are designers, stewards, and teachers. Sergiovanni (1992), on the other hand, talked about "substitutes for leadership," where every teacher is a leader. Leithwood (1992) used the term *transformational leadership* to characterize the type of administration required in the development of a collaborative culture, whereas Fullan (1992) suggested that principals must establish norms of continuous improvement as well as norms of collegiality that respect individuality. School-based administrators must

foster conflict resolution skills, teacher development that emphasizes inquiry and reflection, and improved communication systems; they "must learn to influence and coordinate non-linear, dynamically complex change processes" (Fullan, 1993, pp. 74-75).

The recent literature views leadership as a means of bringing purpose and relevance to the relationship between individuals and the larger entity—a notion similar to Bolman and Deal's (1991) idea of symbolic leadership. Sergiovanni (1994) noted that a school may need strong and direct leadership when it is in trouble, but the need would lessen as the problems subsided. Thereafter, the need for community leadership would increase. Duke (1994), taking a somewhat different approach, examined leadership in terms of "organizational drift" (vs. mission attainment) and "teacher detachment" (vs. commitment). When a school is perceived to lack direction and coherence, the need for leadership increases. Similarly, when individuals withdraw psychologically while remaining physically present, the need for leadership increases. However, when commitment is high and drift is low minimal or no leadership may be required.

Taken together, the recent literature points to a more humanistic leadership style that is symbolic, transformational, and facilitative. Proponents of change have consistently argued for a greater dispersion of leadership opportunities and functions among stakeholders (Sergiovanni, 1994). Darling-Hammond, Cobb, and Bullmaster (1995) examined reform efforts that resulted in professional development schools (PDSs): schools that are said to "create communities of learners" while presuming that "student and teacher learning are interrelated" (p. 2). Shakotko (1995), focusing on change in a rural system, found that the most active elements of change agency were "a sense of purpose, an internal locus of control, a willingness to take risks, confidence, professional competence, and engagement in collaborative efforts" (p. 123). Where administrators were perceived to be coercive, cautious, or ambivalent toward change, teachers tended to exhibit uncertainty, resistance, passivity, and resignation. On the other hand, where administrators offered "optimism, enthusiastic support, and an empowerment of educators to risk and take an active role in the decision-making process" (p. 118), the change agency status of teachers was supported and confidently pursued.

Appreciating the roles of leadership in bringing about the successful institutionalization of school improvement initiatives, we developed a number of practices related to leadership. These included: helping staff members identify and articulate a vision; encouraging shared values, beliefs, and attitudes related to teaching and learning; sharing leadership among the staff; working toward school improvement; encouraging regular evaluations of progress; leading by doing rather than by telling; modeling problem-solving; stimulating people to focus on activities as they relate to students; encouraging high performance and professional development goals; treating each staff member as an individual with unique needs and expertise; helping staff think about the personal ramifications of school change; ensuring adequate involvement; linking school goals and system goals; and encouraging dialogue on the teaching-learning process.

Although the overall conceptualization of the study incorporated many variables, the emphasis in this article is on organizational learning and leadership.

Conceptual Framework

The influences that initiate and sustain the change process, and hence the learning organization, can be understood by examining the technical, political, and cultural forces that operate in an individual school (Tichy, 1992). The technical perspective emphasizes the rational approach and deals with the skills, competences, and task orientation of the teachers, as well as the human and financial resources of the school. The political perspective deals with the conflicts and compromises that are inevitably part of the process. The cultural perspective focuses on the importance of shared norms, beliefs, and values among school personnel and the symbolic meanings they attach to their everyday work. A fourth perspective in this study addressed the opportunities that existed for organizational learning such as systems thinking, team learning, shared vision, mental models, and personal mastery (Senge, 1990).

We judged that these four perspectives would be evident during the various phases of the program; that is, initiation, implementation, institutionalization, and visible outcomes. This judgment was supported in part by Shakotko (1995), who found that technical influences were seen to be essential during the initiation phase, whereas political forces were important during the implementation phase. We contended in addition that the cultural perspective would necessarily come to dominate if institutionalization were to occur. Finally, the internal and external support structures and the human aspects of the process are important in understanding the institutionalization of change.

Research Design

This article reports on one aspect of a larger project the purpose of which was to identify successful school improvement initiatives and indicators of institutionalization. The project was based on the Saskatchewan School Improvement Program (SSIP). As the SSIP has been described elsewhere (Hajnal et al., 1994; Sackney et al., 1995), only a cursory overview of the program and research design are presented here.

The Context

The SSIP was a provincially initiated inservice program based on the effective schools research (Austin, 1979; Brookover & Lezotte, 1979; Brophy & Good, 1987; Coleman et al., 1966; Edmonds, 1979; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Murphy & Hallinger, 1985; Rutter, Maughan, Mortimore, & Ouston, 1979). Its purpose was to build a capacity for group planning and problem-solving at the school level in order to foster high levels of student learning and success (Hajnal et al., 1994). It was developed on the premise that the school is the basic unit of change; hence a school-by-school design was adopted. It focused on nine characteristics of effective schools: competent leadership; a shared vision; a caring climate; quality instruction; a planned curriculum; staff development; systematic monitoring and evaluation; parent and community involvement; and collaborative problem-solving. The program

further delineated those factors that make a school effective and how people in effective schools work together.

Thirteen schools were involved in the pilot study in 1986. The program was eventually expanded to include some 140 schools throughout Saskatchewan (of a possible 825), including a variety of sites (urban and rural) and organizational structures (e.g., K-12, K-8, 9-12). In order to participate, each school had to identify an SSIP team—the principal, a teacher, and a central office person—which was responsible for facilitating the process. The various SSIP teams met three times during the year to report on their progress, to help one another solve problems, and to learn new strategies and processes to further their work. Provincial consultants provided additional support.

Survey Design

The Dynamics Schools Project Questionnaire was developed to collect empirical data for the pilot study. The final form of the questionnaire, refined after a pilot with several teachers and administrators, requested information on demographics, areas of focus for improvement, factors affecting initial planning, groups and factors that influenced the development of SSIP, the impact of SSIP, common problems encountered in the implementation of SSIP, sources of assistance, the outcomes of SSIP, measures of teacher efficacy and orientation, leadership, organizational learning, and current uses of SSIP. Participants were invited to make written comments, and a number of outcome measures were also used.

Using the mail distribution services of the school divisions, the questionnaires were distributed to the teachers and principals of the 140 schools. Questionnaires in envelopes were not directed to specific individuals. Two follow-up letters were mailed to the schools in an attempt to improve the response rate. Follow-up telephone calls indicated that those schools who chose not to respond had dropped SSIP. Owing to the distribution process, we cannot specifically report the response rate.

Data Analyses

Means, standard deviations, and frequency counts, cross-tabulations, t-tests, and regression analyses were conducted using the Statistical Package for the Social Sciences. Principal component analysis of a number of scales was undertaken to discover the underlying constructs. Global measures were used to determine the overall effectiveness and success of implementation (Hajnal et al., 1994). A probability less than .05 was used to determine a statistically significant relationship.

Findings

Exploring leadership and organizational learning factors, our overall purpose was to outline some of the indicators of institutionalization as ascertained by the program.

Context

In total 377 responses were received from 93 schools. The number of respondents per school ranged from 1 to 17, with an average of 4 respondents per school. Men and women were represented equally. Respondents were experienced teachers having worked an average of 11 years at their current school

and 17 years in the profession. Ninety-three percent worked full time, 7% part time.

The program identified 16 areas of focus—eight at the classroom level and eight at the school level—with educators able to select as many areas of focus in their schools as was realistic. Respondents were asked which areas were a major focus, a minor focus, or not a focus at all for their school. At the classroom level, high expectations for student learning was identified as a major focus by 54% of the respondents, followed by productive learning environment (47%), and a variety of instructional strategies (46%). At the school level, two areas of major focus—caring climate (88%) and shared vision (75%)—were identified most often, followed by quality instruction (53%), collaborative problem-solving (47%), and staff development program (45%). Other areas of focus at the classroom and school level were identified by fewer than 45% of respondents. Overall, schools paid more attention to school level as opposed to classroom level attributes. Initially for many schools, cosmetic changes were the first areas to be considered. Only after they had had some experience with SSIP did some schools work on instructional strategies.

Outcome Measures of SSIP Implementation

Using a 10-point scale, teachers were asked to rate their school on its overall effectiveness (OE) and on the success of the school's implementation (SOI) of the SSIP model. Although effectiveness (m=7.32, σ=1.56) was rated higher than implementation (m=6.14, σ=2.47), there was greater variability in the rating of implementation. In addition, one outcome variable reported the quality of school administrative leadership (AL).

Leadership

Underscoring leadership as a critical element in school improvement, we examined its influence in the SSIP processes and on the school. The administrator's efforts to visit classrooms for supervision purposes, the influence of district-wide programs, and the quality of school leadership were also examined.

Classroom visits. Teachers were asked how many times an in-school administrator had visited their classrooms for the purpose of formal supervision during the current school year. Fully 46% of respondents reported that they had had no visits, whereas 44% reported one or more. Respondents were split into two groups according to the two categories—no visits, and one or more visits—and t-tests were employed to determine if there were differences. Teachers who were visited by their principal for purposes of supervision reported significantly higher means for OE, SOI, and AL.

Clearly a principal's classroom visits are important to the school in a variety of ways. Teachers whose principals visited their classroom for the purpose of supervision evaluated the quality of school leadership higher than those whose principals did not. They reported that their schools were more effective, and they experienced more success implementing the program.

System-level leadership. Several researchers (Louis & Miles, 1990; Rosenholtz, 1989) have suggested that there must be an optimum level of pressure and support from central office for successful change to occur. To examine this issue we asked whether the school's improvement program was part of a coor-

dinated, system-wide effort and why the school had become involved with SSIP. Responses to the first question revealed that 51% of the schools involved were part of a system-wide effort.

The two groups—those who were part of a system-wide effort and those who were not—reported somewhat different areas of focus. Cross-tabulations and chi-square analyses were conducted for each focus. If the school was part of a system-wide effort, it was likely that it would have more focus on instructional strategies; carefully planned and delivered lessons; the alignment of curriculum, teaching, and testing; clear instructional goals; systematic curriculum planning; and quality instruction.

Teachers who were part of a system-wide effort rated their schools lower in overall effectiveness than those who were not, but significantly higher (*Ms*=6.4, 5.8; t=2.13; p=.03) on the success of the school's implementation of the SSIP model. Consequently, it is clear that a system-wide effort had an effect both on the success of the implementation and on the areas of focus selected for SSIP.

In an attempt to understand the process better, we tried to determine which reasons for becoming involved with SSIP would explain the success of implementation or the lack of it. Using SOI as the dependent variable and the 10 reasons for becoming involved in the program, a regression analysis was conducted (see Table 1). Only 10% of the variance was explained. "Successful experiences of another school" was associated with increased success, whereas "Pressure from the director of education" was associated with decreased success in implementation. Although it is the prerogative of central office to initiate involvement with SSIP, pressure from the director at the initiation stage was viewed negatively. This may indicate that there are more and less appropriate times in the change process for pressure and support.

Variance in the quality of school leadership. Using AL as the dependent variable, a regression was conducted with the 18 leadership tasks as independent variables (see Table 2). Altogether, 69% of the variance in the perceptions of quality of leadership was explained. Because the beta coefficients are based on standardized scores, the magnitude of the coefficients can be compared directly. "Leads by 'doing' rather than simply by 'telling'" was the most important task that predicted teachers' perceptions of the quality of administration followed by "Is appropriate for our school goals" and "Works toward school improvement." "Encourages teachers to do work collaboratively" was the fourth most important predictor, although its significance level was .06.

To determine the underlying structure of leadership, a principal component analysis was conducted on the 18 leadership questions. Using a Varimax rotation, two factors were determined that accounted for 73% of the variance. The first included items that dealt with leadership aspects in the school (LSCH); the second consisted of items primarily concerned with the principal's personal relationship with the teacher (LTEA). Factor loadings and eigenvalues are presented in Table 2. Factor scores were determined by adding the responses to the questions that displayed factor loadings greater than or equal to .60. Rather than using the individual leadership functions in further analyses, the two factors LSCH and LTEA were used. Given the variety and quantity (18) of leadership functions we examined, the existence of only two underlying dimensions was interesting. Successful leadership is evidenced in both a gener-

Table 1
Teachers' Perceptions of Reasons Why Schools Became Involved with SSIP and Summary of Regression Analysis Predicting Success of Implementation (N=334)

Reasons for Involvement with SSIP	*Percent**	*Correlation*	*Regression Information*	
			β	*p*
Successful experiences of another school	11.6	**.13**	**.11**	**.04**
Pressure from director of education	19.9	**–.22**	**–.21**	**.00**
Initiative of central office	27.5	.08	.09	.10
Initiative of the principal	34.5	–.01	–.07	.21
Initiative of a group of teachers	15.1	**.13**	.10	.06
Need for a vehicle of change	18.3	.07	.01	.91
Pressure from the community	2.2	–.02	–.05	.32
Have always been an innovative school	10.5	**.12**	.09	.08
Desire to be a more effective school	42.0	**.14**	.07	.26
Were experiencing conflicts	10.8	–.02	–.03	.54

Note. Regression information and correlation coefficients in boldface indicate $p<.05$.
*Percent of teachers who selected each reason. As teachers were able to select as many reasons as they wished, the total exceeds 100%.

al strengthening of the school culture and in a nurturing of the individual. The general concern for the school included such functions as developing a vision; sharing values, beliefs, and attitudes; and leading by example. Nurturing of the individual is apparent in the acknowledgment of the teacher as a person with unique needs, expertise, concerns, and personal reactions.

Organizational Learning

We examined 15 behavior items as measures or indications of extant organizational learning. A six-point scale was employed; means and standard deviations are presented in Table 3. To understand the role played by these indicators, a regression analysis was conducted using SOI as the dependent variable and the 15 behaviors as the independent variables. Thirty-eight percent of the variance in implementation was explained by the variables and four were significant (see Table 3). "Engage in collaborative processes" was the most important predictor followed by "Align the activities to the school's missions" and "Align the activities to the district's goals." Although having a positive correlation with SOI, "Engage in dialogue regarding teaching and learning" displayed a negative effect beta in this regression equation. Apparently this variable acted as a suppressor variable in the regression equation. The explanation for this is not apparent. However, it is possible that the necessity of engaging in dialogue to reach agreements may have caused a kind of paralysis, resulting in a lack of action and a less effective implementation or that the negative beta is purely an artifact of the regression process.

To determine the underlying structure of organizational learning, a principal component analysis was conducted on the 15 behaviors. Using a Varimax

Table 2
Teachers' Perceptions of the Extent to Which the Leadership in the School Exhibits These Behaviors (N=203)

Leadership Behaviors	*M*	*SD*	*Factor 1**	*Factor 2**	*Regression Information*	
			LSCH	*LTEA*	β	*p*
Helps the staff to identify and articulate a vision	4.15	1.36	**.82**	.35	.00	.98
Encourages shared values, beliefs, and attitudes	4.24	1.30	**.81**	.39	−.06	.38
Shares leadership broadly among the staff	3.98	1.47	**.69**	.45	.04	.53
Works toward school improvement	4.50	1.36	**.83**	.31	**.15**	**.03**
Encourages us to regularly evaluate our progress toward our goals	3.97	1.42	**.78**	.37	−.02	.80
Leads by 'doing' rather than simply by 'telling'	4.07	1.58	**.75**	.42	**.27**	**.00**
Models problem-solving techniques	3.74	1.42	**.73**	.48	−.02	.77
Is appropriate for our school goals and priorities	4.12	1.38	**.75**	.45	**.19**	**.01**
Stimulates me to think about what I am doing for my students	3.94	1.39	**.73**	.47	.08	.23
Encourages only the best performance from us	4.10	1.34	**.68**	.51	.08	.21
Encourages teachers to work collaboratively	4.22	1.40	**.64**	.57	**.12**	**.06**
Frequently acknowledges my good performance	3.75	1.54	.34	**.77**	−.04	.49
Encourages me to pursue personal professional development goals	4.03	1.45	.38	**.74**	.07	.26
Encourages me to think about some of the personal ramifications of changes in the school	3.74	1.39	.42	**.72**	−.02	.68
Treats me as an individual with unique needs and expertise	4.17	1.57	.34	**.81**	.07	.29
Ensures adequate involvement in decisionmaking	3.92	1.48	.42	**.76**	.00	.98
Links school goals to division goals	4.05	1.32	.33	**.63**	.00	.96
Encourages dialogue on the teaching-learning process	3.93	1.30	.54	**.67**	.03	.62
Eigenvalue	6-pt scale		12.14	1.01		
Reliability coefficients			.97	.93		

Note. Regression information and correlation coefficients in boldface indicate $p<.05$.
*Factor loadings in boldface indicate which questions were added together to produce the factor scores.

rotation, three factors explained 74% of the variance. The first factor, COLLAB, described engaging in collaborative processes such as sharing professional expertise among colleagues. The second factor, INDLEARN, was more individually focused, representing a willingness to engage in professional learn-

Table 3

Teachers' Perceptions of the Extent the Staff is Willing to Engage in Organizational Learning Behaviors and the Summary of the Regression of These Behaviors Predicting Implementation of SSIP (*N*=313)

Organizational Learning Behaviors	*M*	*SD*	*Factor 1**	*Factor 2**	*Factor 3**	*r*	*Regression Information*	
			collab	*indlearn*	*scmigo*		β	*p*
Engage in professional learning and growth	4.56	1.11	.26	**.83**	.23	**.25**	.01	.91
Critically examine current practices	4.33	1.22	.32	**.80**	.23	**.27**	−.06	.48
Experiment with new practices	4.30	1.12	.29	**.81**	.21	**.23**	−.08	.25
Share information openly and honestly	4.39	1.29	**.78**	.37	.13	**.29**	.01	.88
Value diversity of opinions	4.06	1.29	**.74**	.29	.22	**.31**	−.01	.88
Engage in dialogue regarding teaching and learning	4.45	1.19	.59	.48	.32	**.26**	**−.20**	**.01**
Develop a shared vision	4.32	1.25	.52	.42	.48	**.44**	.03	.75
Engage in collaborative processes	4.33	1.22	**.66**	.42	.36	**.44**	**.31**	**.00**
Engage in self-reflection	3.91	1.22	.44	.39	.54	**.39**	.05	.52
Learn from past experiences	4.37	1.13	**.60**	.39	.38	**.34**	.02	.81
Share professional expertise among colleagues	4.59	1.17	**.78**	.23	.23	**.33**	.05	.48
Ask for help when required	4.25	1.27	**.82**	.14	.20	**.26**	−.11	.13
Strike the right balance between too much and too little change	4.09	1.20	**.65**	.26	.39	**.38**	.09	.20
Align activities to the school's mission	3.95	1.27	.31	.21	**.86**	**.56**	**.28**	**.00**
Align activities to the division's goals	3.78	1.26	.19	.21	**.89**	**.52**	**.23**	**.01**
Eigenvalues			8.98	1.06	1.00			
Reliability coefficients			.93	.88	.90			

Note. Regression information and correlation coefficients in boldface indicate $p<.05$.

*Factor loadings in boldface indicate which questions were added together to produce the factor scores.

ing and growth and to reflect on and experiment with ongoing practices. The third factor, SCMIGO, pertained to aligning activities to school and school system goals. Factor loadings and eigenvalues are presented in Table 3. Factor scores were determined by adding the responses to the questions that displayed factor loadings greater than or equal to .60. Rather than using the individual organizational behavior questions, the three factors COLLAB, INDLEARN, and SCMIGO were used in further regression analyses.

Implementation Success and Overall Effectiveness

In assessing whether the school improvement program was implemented as planned or whether some changes occurred during implementation, 76% of respondents reported only minor changes, 7% reported that things went exactly as planned, and 17% reported major changes. Seventy-five percent of respondents reported that the school staff engaged in school improvement planning on at least a yearly basis, and 65% reported that staff evaluated those plans on at least a yearly basis.

Two regression analyses were conducted, the first using SOI, the second using OE as the dependent variables. The independent variables included the two leadership factors, the three organizational learning factors, plus "System-wide effort," "Engage in planning at least on a yearly basis," and "Evaluate plans at least on a yearly basis."

Sixty-one percent of the variance in the implementation of SSIP was explained by the nine variables used (see Table 4). The four most important predictors included the willingness to align activities to school mission and district goals, to engage in school improvement planning on a yearly basis, to treat teachers as individuals with unique needs, and to evaluate plans on at least a yearly basis. Schools that made major changes in the program during implementation were less likely to be successful in their implementation. This was the only variable with a negative coefficient that was significant.

Forty-six percent of the variance in the overall effectiveness of the school was explained by the 10 independent variables that included SOI. Table 4 indicates that school leadership had the largest beta value, .43. The collaboration factor derived from the organizational learning questions and SOI had similar predictive ability. Although positively correlated with the overall effectiveness of schools, participation in a system-wide effort and alignment with mission and goals displayed negative beta values when combined with the other variables in the regression equation.

Leadership in a school, particularly leadership that strengthened the school culture, was a strong predictor of the implementation of SSIP and the overall effectiveness of the school; however, it was administering to the teachers that helped predict the success of implementation. The importance of leadership in the school was reinforced by these analyses.

Organizational learning, represented by the factors "Collaboration," "Individual learning," and "School mission and district goals," was positively correlated with the implementation of SSIP and the overall effectiveness of the school. Collaboration, although not affecting the implementation of SSIP, was a predictor of the overall effectiveness of the school. Taking the other variables into account, the willingness of teachers to align their activities with the mis-

Table 4
Summary of the Regression Analysis for Variables Predicting the Success of the School's Implementation and the Overall Effectiveness of the School (*N*=233)

Variables	*Implementation of SSIP model (SOI)*			*Overall effectiveness of the school (OE)*		
	r	β	*p*	*r*	β	*p*
Leadership of the school	**.58**	.12	.15	**.60**	**.43**	**.00**
Leadership of the teachers	**.53**	**.19**	**.01**	**.55**	.01	.95
Collaboration	**.40**	–.00	.95	**.43**	**.23**	**.00**
Individual learning	**.28**	–.06	.27	**.33**	.11	.11
Alignment with school mission and division goals	**.52**	**.34**	**.00**	**.25**	**–.21**	**.00**
Part of divisionwide effort	**.12**	.02	.63	–.09	**–.13**	**.01**
Changes in implementation of plan	**–.22**	**–.14**	**.00**	**–.17**	–.06	.26
Engage in school improvement planning on at least a yearly basis	**.57**	**.27**	**.00**	**.24**	.08	.28
Evaluate school improvement plans at least on a yearly basis	**.51**	**.14**	**.02**	**.17**	–.11	.13
Success of your school's implementation of SSIP				**.47**	**.21**	**.01**

Note. Regression information and correlation coefficients in boldface indicate $p<.05$.

sion of the school and the goals of the system helped to predicted the success of SSIP implementation.

Individual concerns, represented by the individual learning component of the organizational learning construct, was neither a predictor of the implementation of SSIP nor of the effectiveness of the school. Although attention to this concern might well result in more satisfied teachers, it appears to have had little effect on the two outcomes we examined.

Teachers' sense of self-efficacy has received considerable attention in education (Ashton & Webb, 1986; Gibson & Dembo, 1984; Hajnal, 1991; Midgley, Feldlaufer, & Eccles, 1990; Woolfolk & Hoy, 1990) and particular interest has extended to its effect on student outcomes. Recently interest has turned to the effects of teacher self-efficacy on professional community (Louis, Marks, & Kruse, 1996) and teachers' desire to participate in decisionmaking (Taylor, Tashakkori, & Hardwick, 1996). In this study we examined the relationship between teacher self-efficacy, organizational learning, implementation of school improvement plans, and overall success of the school.

Five questions were used to examine teacher efficacy. Using the mean for the five questions, teachers were divided into two groups, high and low teacher efficacy. T-tests were used to determine that there were differences between these two groups of respondents in their perceptions of organizational learning and in success of implementation. However, no significant differences existed between the high and low teacher efficacy groups on their perception of the overall effectiveness of their school.

Discussion and Conclusions

Initial attempts at school improvement for the schools in our study focused on cosmetic changes rather than teaching and learning. Most efforts in the early stages concentrated on improving the school climate (88%) and on developing a mission (75%). The shift in focus to instructional concerns generally occurred only after the schools had had some experience with SSIP. Those schools that did focus on instructional initiatives were more effective and tended to have more central office involvement, in their change efforts. Educators expressed early preferences for improvement initiatives that did not impinge on their classroom settings, indicating that individuals and organizations prefer to develop an increased capacity for change before such close-to-home initiatives are undertaken (Louis & Miles, 1990). Those aspects of change that are at the core of schooling may require a deeper cognitive, behavioral, and value transformation (Sackney et al., 1995).

Leadership is critical to initiating, sustaining, and institutionalizing school change (Rallis & Goldring, 1994; Schein, 1992). Louis and Miles (1990) found that no matter how talented a staff might be collectively, schools with ineffective principals were likely to be unexciting places. Similarly, Rosenholtz (1989) found that superintendents and principals who were "stuck" tended to have schools that were "stuck." As well, Johnson and Pajares (1996) found the support of the principal enhanced shared decisionmaking. In this study the leadership exhibited by the administrators in the school and the leadership exhibited by teachers had the greatest effect on both the success of school improvement initiatives and the overall effectiveness of the school.

Our data support the contentions that the institutionalization of change is not easily accomplished and that change is messy. Miles (1983) found that pressure and support from central office were necessary if change was to occur. Louis and Miles (1990) concurred to the extent that pressure and support were necessary initially, but thereafter the ownership of change had to shift to the staff. Our study found that in the initiation phase, pressure from the director of education was viewed negatively. However, schools that were part of a division-wide effort were more successful with their school improvement programs, but not necessarily with their overall effectiveness. If the improvement effort was system-wide, more attention tended to be paid to classroom skills, curriculum, systematic planning, and quality instruction.

Several basic tenets of administration were supported by this study. In those schools where classroom supervision was emphasized, SSIP was more successfully implemented. As well, SSIP was more successfully implemented in schools where the teachers reported that they engaged in planning and evaluating school improvement plans at least on a yearly basis.

Teachers who reported the school improvement plan was implemented exactly as planned or with minor changes reported greater success with implementation, greater overall effectiveness of their school, and a superior quality of school administrative leadership. When teachers reported major changes in implementation of the school improvement plan, these changes produced a negative effect on the implementation. This finding supports Fullan's (1992) observation that poorly designed change efforts were usually doomed to failure and suggests that although flexibility is required in the

change process, adequate initial planning continues to be an important element in the change process. Another conclusion is that the quality of the school administrative leadership has an influence on how the change process moves forward, and better leadership ensures that the change process does not become derailed and require major changes.

Our study concluded that the quality of leadership was important for the institutionalization of SSIP. To engage in successful school improvement efforts required an empowering leadership that focused on a shared vision, such that staff took ownership of the initiatives. Where the emphasis was on facilitating, on support and encouragement, staff involvement and the chances of success were greater than where the focus was on telling. Our data further supported the conclusion that schools that were pressured into becoming involved in SSIP by system personnel or the principal were less likely to be successful in institutionalizing changes.

Principal component analysis of our leadership scale identified two underlying dimensions: school-level effort and personal attention. Leaders who want to implement change will have to pay attention to both school and personal factors. School-level factors included attending to a shared vision, providing resources, and establishing a climate supportive of change. Personal factors included paying attention to individual differences, facilitating and empowering, encouraging collaboration, and building a climate of trust and caring that, in turn, encourages change; the principal must know when to back off and when to step in. Regression analysis indicated that in successful school improvement programs the leaders "led by doing rather than telling," and teachers were encouraged to work collaboratively in achieving school goals and setting appropriate priorities. We also found that encouraged teachers were more resilient in the face of change.

Another aspect of the conceptual framework was to focus on the degree of organizational learning that occurred. In this respect practices that enunciated a clear mission for the school and practices that supported collaboration were important. Teacher comments indicated, further, that if organizational learning was to be part of the school culture, there must be sufficient opportunity for meaningful dialogue, and this dialogue must occur in a climate of trust.

Conducting principal component analysis of the organizational learning behavior scale pointed to three underlying dimensions: collaboration, individual learning, and a sense of vision. Louis (1994) and Cousins (1994) similarly contended that collaboration and a sense of purpose were requisite for organizational learning to occur. Furthermore, organizational learning was closely aligned to individual cognition and reflection. Kofman and Senge (1993) described effective organizational learning environments as "spaces for generative conversations and concerted action" where "people can talk from their hearts and connect with one another in the spirit of dialogue" (p. 16). Garvin (1993) contended that a learning organization can be both empowering and tranquilizing.

Teachers' sense of efficacy played an underlying supporting role for the enhancement of professional community and organizational learning. Teachers who were more efficacious were more willing to participate in all aspects of organizational learning—collaboration, individual learning, and a sense of

vision—and they believed that their schools were more successful with SSIP. When teachers believe that they can make a difference and are interdependent, they work toward common goals. Consequently, implementation of school improvement initiatives is more likely to succeed.

The importance of teacher self-efficacy is clear from this study and others. Lee and Smith (1996) reported a strong positive link between teachers' sense of efficacy and valued student outcomes. Examining teachers' desire for participation in decision-making, Taylor et al. (1996) reported that sense of efficacy was the variable in their study that was most likely to discriminate between teachers. As well, teachers with the lowest self-efficacy reported less collegiality and communication with their colleagues.

Based on regression analyses, we concluded that the nature and quality of leadership behavior, the extent of collaboration, and the degree of staff involvement were strong determinants of the institutionalization of SSIP and school effectiveness. An environment that fosters collaborative cultures and teachers' collective engagement in sustained efforts to improve schools will be more successful in institutionalizing change.

Although we have images of excellence for schools, we do not have clear models of institutionalization. How can we transform ordinary schools into schools where excellence is institutionalized: places where renewal, growth, and reflection are integral to the culture? Why are some schools more effective in building a capacity for change than others? These are questions that continue to provoke the researchers' imagination.

We conclude that leadership and organizational learning are critical to school improvement. To lead school change successfully requires attention both to organizational goals and to professional relationships. The schools in this study that were most successful in institutionalizing change were those with dynamic, facilitative leadership and a professional community. The teachers and administrators in these schools were able to foster a collaborative culture for organizational learning where the climate for renewal was promoted from within. Organizational learning is both personal and group-oriented and operates most successfully where a shared vision and processes are in place to facilitate the realization of that vision.

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The *Note* should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the *Note* could be either a specific study or inquiry or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a *Note* is 1,000 words (about 4 double-spaced pages in standard 12-point type), excluding references and one or two tables or graphs. To encourage communication between researchers, authors of *Research Notes* are asked to provide contact information such as e-mail, fax, and/or telephone numbers for publication with each *Note.* No abstract is required, but in all other respects the usual **ajer** guidelines for manuscripts should be observed.

Submissions to *Research Notes* will be reviewed for readability, clarity, organization, length, and adherence to all *Alberta Journal of Educational Research* (**ajer**) guidelines. Any submission that is judged to meet these criteria will be published as soon as possible to minimize the usual delays in moving submissions to publication. Any submission that is judged to require revisions according to the criteria outlined will not be published, as the *Notes* must have some currency if they are to serve the purposes identified.

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International Educational Reform: From Proposals to Results

Canadian provinces have not stood apart from efforts at large-scale educational reform, defined here as "programs of educational change that are government directed, initiated on an explicitly political analysis" (i.e., driven primarily by the political apparatus of government rather than by educators or professional bureaucrats), and justified on the basis of the need for a radical break with existing practice (Levin & Young, 1997), that have become widespread across the industrialized world in the last two decades (Organization for Economic Cooperation and Development [OECD], 1996). These reforms have come to command considerable attention in the educational literature of each jurisdiction (Gewirtz, Ball, & Bowe, 1995; Holmes, 1992; OECD, 1995; Plank & Boyd, 1994; Simkins, 1995) and to a lesser degree in the comparative literature across countries and jurisdictions (Carter & O'Neil, 1995; Dale & Ozga, 1993; Glatter, Woods, & Bagley, 1997; Whitty, 1997; Wylie, 1997). The research project described here, funded by the Social Sciences and Humanities Research Council for the period 1996-1999, is an attempt to build on and extend this comparative research by (a) locating specific Canadian experiences in this international literature, and (b) exploring how Canadian and international experiences have come to inform each other.

The object of this project is to study the purposes, antecedents, and consequences of large-scale (national, state, or provincial) educational reforms across several different jurisdictions and contexts—Alberta and Manitoba in Canada, parts of the United States of America (Minnesota and the national role in educational reform), England, and New Zealand. As a comparative analysis of educational politics and policy, the research will examine recent reform initiatives from inception to implementation with a focus on the following issues.

1. *Policy origins.* What reform proposals were initially proposed by governments? What were the sources of these reform proposals? Where did the ideas originate? What ideas and assumptions about educational reform were contained (explicitly and implicitly) in these proposals?
2. *Policy approval.* Which reforms were actually codified into law or regulation? How were these laws and regulations different from what was initially proposed? Why did changes occur?

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3. *Policy implementation*. What steps were taken to implement the reforms? What "policy levers" were used in the implementation process and why?
4. *Policy effects*. What is known to this point on the effects of these reforms in each jurisdiction? What have been their effects on students and on their learning processes and outcomes in schools?

The time of study will vary from jurisdiction to jurisdiction. Although the definition of reform used in this study refers to "a radical break with existing practice," the establishment of any starting point for educational reform has an element of arbitrariness to it. In England the study will begin with the 1986 and 1988 Education Reform Acts and in New Zealand with the 1987 Picot Commission. In Manitoba and Alberta the starting point will be educational reforms introduced in 1994, and in Minnesota it will be developments begun by the school choice movement of 1985-1987.

Sources used in the study will include primary materials and relevant legislative documents as well as the substantial body of secondary literature that already exists in most of these jurisdictions and interview transcripts (both those that we will conduct specifically for the study and others conducted for other research but accessible to us [Ribbens & Sherratt, 1997]).

Occurring as they have over a relatively short time and across a broad range of countries, with the appearance—at least on the surface—of containing many common features (focus, terminology, rationale), and during a period of rapid technological change and economic globalization, these developments have generated considerable interest and debate around the concept of "policy borrowing" (Halpin & Troyna, 1995). These debates center on an examination of the complex ways policy-makers are influenced by developments in other jurisdictions and how policies as a consequence migrate from location to location. As well, they are concerned with exploring the extent to which copying reforms from other countries without reference to the specific organizational, political, social, and educational traditions of each context is both possible and able to contribute to actual improvements in educational outcomes (Levin, 1996).

Our research is in its early stages with attention focused on the origins of reform and the role of ideology in the formulation of these policies in each jurisdiction (Levin & Young, 1997). These preliminary explorations serve to highlight the complexities of understanding policy development across jurisdictions. International developments and dominant discourses appear clearly important, but so too are national and local political traditions as well as more or less accidental circumstances and the predispositions of people in particular positions. The kind of comparative analysis we are undertaking in this project will, we hope, help us to think more clearly about how important policy issues develop.

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Generalizability of Written-Response Scores for the Alberta Education English 30 Diploma Examination

Performance assessment plays an important role in the diploma examination program at Alberta Education. Students in grade 12, for example, complete two written-response assignments—a major and a minor writing task—on the English 30 diploma examination. These assignments are centrally scored by two markers on six different scales. The written response component accounts for 50% of the student's final diploma exam score. The appeal of performance assessment is obvious: It represents a real-life task that engages and interests students. However, this type of assessment also raises a number of technical questions. The purpose of this Research Note is to address one of many questions surrounding performance assessment, namely, the generalizability of written-response scores. Results from a generalizability study are presented using data from two written-response tasks on the English 30 diploma examinations administered by Alberta Education in 1996. The results are examined separately for the January and June administrations.

Generalizability Theory

Generalizability theory (G-Theory) is a statistical theory about the dependability of behavioral measures (Brennan, 1992; Shavelson & Webb, 1991). It allows the researcher to identify and evaluate how different variables or facets influence measurement. It also permits the researcher to generalize from a student's observed score on a test to the student's universe score (i.e., the score the student would be expected to receive after repeated testing). With G-Theory multiple sources of error can be estimated and evaluated in a single analysis. It allows the researcher to estimate, for example, how many markers, tasks, or scales are needed to obtain a reliable written-response score. G-Theory also provides a measure of dependability that is comparable to a reliability coefficient in classical test theory.

Results

A crossed design was used to examine the effects of Person (P), Marker (M), and Scale (S) on the generalizability of the written-response scores in English 30.[1] Written-response data were analyzed using scale scores from 78 students who wrote the January 1996 exam and from 100 students who wrote the June 1996 exam. Two independent markers assessed a minor assignment using two scales (thought and detail and writing skills) and a major assignment using four scales (thought and detail, organization, matters of choice, and matters of

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correctness, see the 1995-1996 English 30 Information Bulletin for more details on the writing assignments). The scales ranged from a low of 1 (indicating poor performance) to a high of 5 (indicating excellent performance). The results are presented in Table 1. The main effects and interactions for the Person, Marker, and Scale facets reflect the magnitude of error in generalizing from a student's score on a single scale to his or her universe score. Large variance components are associated with erroneous generalizations. Test developers strive to attain small error variances in those facets under their control (e.g., markers and scales). The percent total column reveals how much of the variance can be attributed to each facet.

The largest variance component was attributed to persons. Student variability was the single largest source of measurement error because students' written-response scores differed in this sample. The variability attributed to markers and scales, on the other hand, was small indicating that, overall, markers were consistent with one another and that scores on the scales for the major and minor assignments, respectively, were similar. The largest interaction was attributed to the student-by-marker facet (i.e., P x M in Table 1) suggesting that students' scores differed as a function of marker. The person-by-marker facet also varied by task, as the minor assignment produced larger variance components compared with the major assignment. Alternatively, the person-by-scale and the marker-by-scale interactions were small, indicating that students' performances were comparable across the two assignments in January and June and that markers awarded similar scores across the two assignments in January and June. The final variance component was a person-by-marker-by-scale facet, which served as the error term. This interaction included all sources of variability that influence students' performances (i.e., Person, Marker, and Scale) as well as those sources not accounted for in the analysis. The error component was relatively small, indicating that the three facets accounted for much of the variability in this analysis.

Table 1
Estimated Variance Components for the Generalizability Study as a Function of Administration Date and Task

	January 1996 (n=78)				*June 1996 (n=100)*			
	Minor Assignment	*%*	*Major Assignment*	*%*	*Minor Assignment*	*%*	*Major Assignment*	*%*
Facet								
Person (P)	0.56	0.59	0.57	0.68	0.42	0.59	0.47	0.56
Marker (M)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Scale (S)	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
P x M	0.10	0.11	0.03	0.04	0.11	0.16	0.05	0.06
P x S	0.06	0.06	0.04	0.05	0.04	0.06	0.03	0.03
M x S	0.02	0.02	0.00	0.00	0.01	0.01	0.01	0.01
P x M x S, e	0.17	0.18	0.19	0.23	0.12	0.17	0.17	0.20

Note. The three-way interaction is the error term in this generalizability study. It cannot be meaningfully interpreted because it includes sources of error that were not analyzed in this study.

G-Theory also allows the researcher to forecast reliability given a specific target of dependability in the measurements. In the present study the marker facet was increased from 1 to 5 to determine whether more markers would affect the dependability of students' written-response scores. As shown in Figure 1, the dependability coefficient increased as the number of markers increased, with the most gain occurring between a one and two marker system. There was little appreciable gain in the dependability coefficient beyond two markers. In addition, scores from the major task were consistently more reliable than scores from the minor task as the number of markers was increased.

Conclusions

The results of this generalizability study support three general conclusions. First, the person-by-marker facet produced a large interaction term suggesting that students' scores differed as a function of marker. However, this variance component was relatively small across the two tasks and two administrations, indicating that it contributed little to the error in measurement. Second, the generalizability of the written-response scores was high using a two-marker system. In fact, the dependability coefficient would not be enhanced appreciably by moving beyond two markers relative to the anticipated costs (i.e., costs increase as the numbers of markers increase). Third, scale variability was not an important source of measurement error. Although the major assignment yielded more reliable results than the minor assignment, the written-response scales for both tasks worked well as the scale main effect and the person-by-scale and marker-by-scale interactions contributed little error to the generalizability of the written-response scores.

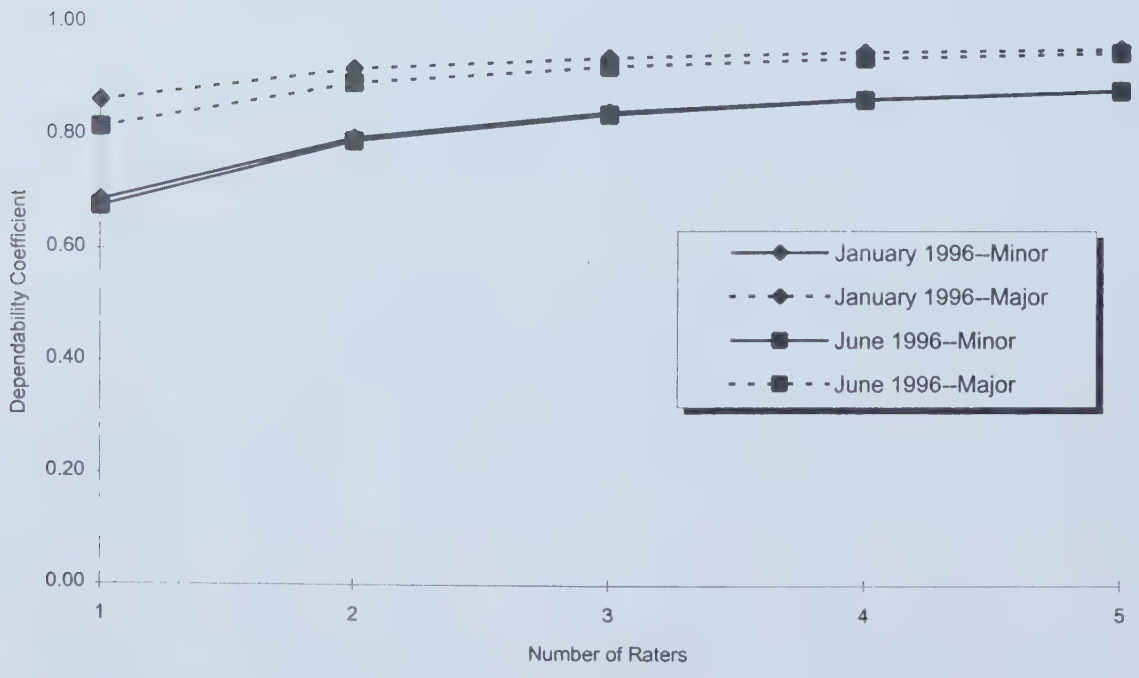


Figure 1. Dependability coefficients for absolute decisions as a function of rater.

Note

1. The design was crossed but not completely, as all persons responded to the same tasks, and the responses of all persons to all tasks were evaluated by the same first marker. Thirty different second markers were used in the January 1996 analysis and 54 different second markers were used in the June 1996 analysis.

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Relationships Among Control Beliefs, Approaches to Learning, and the Academic Performance of Final-Year Nurses

Over recent years a number of researchers have examined different aspects of the ways students typically engage learning. These studies have included investigations of epistemological beliefs (Schommer, 1993), motivational goals (Archer, 1994), attributional beliefs (Chan, 1994), approaches to learning (Cantwell & Millard, 1994; Moore, 1995), and self-regulatory beliefs (Cantwell & Moore, 1996; Winne, 1995). A number of researchers have further suggested that such dispositions may be systematically interrelated (Corno, 1993; Pintrich & Schrauben, 1992; Snow, 1989), although the precise nature of the interrelationships has not received a great deal of empirical attention (Bouffard, Boisvert, Vezeau, & Larouche, 1995). In this brief article we report on a study that investigates potential relationships between two particular sets of dispositions (approaches to learning, Biggs, 1987a) and self-regulatory control (Cantwell & Moore, 1996) and compare their role in explaining the academic performance of university students.

There is little doubt that successful learning in universities involves both a preparedness to approach and engage complex learning tasks, and a preparedness to develop independent learning skills appropriate to meeting the demands of complex learning. Biggs (1987a, 1993) has suggested that the way students approach learning will reflect an amalgam of intentions and strategies that establish parameters for engaging learning tasks. A "deep" student, for example, with an intention of understanding material presented in a course is more likely to engage learning in a fundamentally different way than a "surface" student whose intentions are driven by more extrinsic goals such as accreditation and avoidance of failure (Cantwell & Millard, 1994). At the same time, an intention to understand course material at a deeper level also imposes a much greater self-regulatory load on learning than is likely to be the case where the treatment of material to be learned is addressed in a more superficial manner. Developing complex meaning necessarily requires the activation and use of a greater array of cognitive strategies. It is likely, then, that students reporting deeper intentions in learning should not only draw on a greater array

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of strategies, but could be reasonably expected to be more cognizant of the strategic demands of complex learning and display a greater sensitivity to the need to control and orchestrate strategy use if successful learning is to occur.

In a recent study we reported on the development of a self-report measure indicating ways university students react to complex strategic demands in learning (Cantwell & Moore, 1996). We found that students reported responding to complexity in three ways: adaptively, by adjusting their study methods to accord with task requirements; inflexibly, by persisting with habitual strategies regardless of the degree of their task appropriateness; and irresolutely, by reporting extreme difficulty in conceptualizing strategic options in the face of changing strategic demands. Students reporting adaptive self-regulatory control behaviors tended to have more successful academic outcomes, whereas those reporting inflexible or irresolute control behaviors tended to have less successful academic outcomes (see also Archer, Bourke, & Cantwell, 1996, Archer, Cantwell, & Bourke, 1997).

There are strong theoretical grounds for suggesting that students who report using a deeper approach to learning should also report a conception of self-regulation that acknowledges the need to control complex content and strategy choices flexibly. That is, a deep learner should also indicate adaptive control behaviors. Similarly, a student consciously attending to the institutional demands imposed by a course—typical of students scoring highly on Biggs' "achieving" scale—may also be expected to adjust learning behaviors flexibly to those congruent with the demands of the course. On the other hand, the more limited learning goals and strategy choices associated with the surface approach are more likely to be linked to less functional control behaviors. For example, a reliance on rote learning as a "surface strategy" may reflect an inflexible conception of strategy orchestration and control—the need for adaptive change is not acknowledged by such learners. At the same time, the inappropriateness of such restricted strategies would also suggest that these students may experience uncertainty in conceptualizing alternative strategic models where such change is clearly mandated by the tasks undertaken. We may expect, then, a strong association between surface learning and both inflexible and irresolute control behaviors.

Method

The participants were 207 final-year Diploma of Nursing students from an Australian university. Mean age of the group was 22.7 years (sd=5.41), with an age range of 19 to 48 years. There were 172 females and 35 males.

Materials and procedures. Biggs' (1987b) Study Process Questionnaire (SPQ) and Cantwell and Moore's (1996) Strategic Flexibility Questionnaire (SFQ) were administered to participating students in normal lecture time. Measures of academic learning included final grades awarded in five courses completed by the students in their final year (Nursing Practice, Health Studies, Anatomy and Physiology, Psychosocial Studies, and Professional Studies). Academic grades were obtained with student permission from university records. In addition, an overall grade point average (GPA) was calculated from the mean of the five courses.

Results

The relationships between the SFQ scales and SPQ scales were assessed by zero-order correlations. Adaptive control was correlated with both the deep (r=.60) and achieving (r=.38) approaches to learning. Inflexible control was correlated with a surface approach to learning (r=.37). Irresolute control was associated with the surface approach (r=.36) and the achieving approach (r=–.17). There were no other significant relationships between individual SPQ and SFQ scales.

The relationships between approaches to learning, self-regulatory control and academic performance were also assessed by zero-order correlations. Significant positive correlations with academic learning were evident for a deep approach in relation to anatomy and physiology (r=.15), psychosocial studies (r=17), and GPA (r=.14) and an achieving approach in relation to anatomy and physiology (r=.17), psychosocial studies (r=.18), and GPA (r=.17). Surface learning was unrelated to academic performance. Irresolute control was significantly negatively related to performance in all courses (nursing practice, r=–.27; health studies, r=–.23; anatomy and physiology, r=–.25; psychosocial studies, r=–.19; professional studies, r=–.21) as well as overall GPA (r=–.29). Neither adaptive control nor inflexible control were related to academic performance. These analyses are summarized in Table 1.

Discussion

The study had two aims: to investigate the relationships between reported approaches to learning and reported self-regulatory control behaviors; and to compare the role of these reported dispositions in explaining the learning outcomes of university students. In relation to the first question, there were clear, theoretically consistent associations between individual SPQ and SFQ scales. The link between a deep approach and adaptive control was strongest, confirming our position that complex learning involves not only the awareness of a broad strategy array, but also the awareness of the need to deploy flexibly such strategies in task-appropriate ways. The link between adaptive control and an achieving approach was also confirmed. Similarly, the predicted links between a surface approach and both inflexible and irresolute control were also confirmed. The results, however, were less supportive of our predictions in relation to academic performance. Neither the SPQ nor the SFQ scales corre-

Table 1

	GPA	Nursing Practice	Health Studies	Anatomy & Physiology	Psychosocial Studies	Professional Studies
Surface Approach	–.12	–.12	–.12	–.09	–.09	–.05
Deep Approach	.14*	.10	.11	.15*	.17*	.04
Achieving Approach	.17**	.12	.10	.17	.18	.11
Adaptive Control	.10	.02	.11	.07	.10	.09
Inflexible Control	–.09	–.05	–.08	–.01	–.09	–.11
Irresolute Control	–.29***	–.27***	–.23***	–.25***	–.19**	–.21**

*p<.05; **p<.01 ***p<.001.

lated strongly with academic performance. Given the associations evident in the literature relating to both dispositions (Cantwell, 1998; Cantwell & Moore, 1996 in relation to the SFQ and Cholowski & Chan, 1992; Moore, 1995 in relation to the SPQ), these results were surprising. The correlations were generally quite weak, with only the irresolute scale providing consistent significant associations with performance. It may well be the case in this instance that aspects of the course itself may have come into play. Certainly Meyer and Dunne (1991) and Higgins (1989) have both pointed to the existence of reasonably powerful concrete and clinically oriented cultures in many nursing faculties that tend to militate against deeper learning tasks and outcomes. It is not possible in the current study to quantify this kind of effect. However, the consistent negative relationship between irresolute control and performance in this group may suggest that independently of the relative depth of learning tasks, those students who perceive self-regulatory control processes to be problematic appear to be significantly disadvantaged in learning.

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A Preliminary Examination of the Effects of Gender-Biased Language on Children's Imagery

Over the past two decades, considerable research has supported the idea that using masculine terms (e.g., *he, man*) to refer to both genders leads to a male bias in imagery. Studies with adults have consistently shown that terms such as *man* and *he* even when intended to produce gender-neutral images do not do so (Gastil, 1990; Miller, 1986; Miller & Swift, 1991; Rubin & Greene, 1991; Switzer, 1990). Noticeably lacking from this body of literature, however, is work done with children (Fisk, 1985; Switzer, 1990) despite the fact that they have a more literal interpretation than adults of verbal materials (Stericker, 1981).

One researcher to investigate the effects of gender-biased language on children's imagery is Hyde (1984), who asked participants in grades 1, 2, and 5 to rate how well women and men could do: (a) several traditional jobs; and (b) a fictitious, gender-neutral "wudgemaker" occupation. Pronouns used by Hyde in the description of the wudgemaker were varied. Ratings of women as wudgemakers were lowest when the interviewer read *he* in the job description to the child. Hyde proposed that using gender-related pronouns affects the concepts children form of an occupation, and particularly their ideas of how well women could do the occupation. She also considered the children's knowledge of the convention of using *he* to refer to an unknown person by asking the students what *he* in a generic sentence meant. Understanding of the rule increased with age: 28% of participants in grade 1, 32% in grade 3, and 42% in grade 5 gave responses indicating they knew the "rule."

The purpose of our study was to generate preliminary hypotheses about the contemporary implications of using gender-biased language with child volunteers. Although conceptually similar, our study differed from Hyde's (1984) in three ways: (a) we added a self-referential component to examine the effect of a male-biased term on the personal expectations of girls; (b) we described a task to the children that was directly related to their school experience; and (c) we qualitatively analyzed the children's responses.

Twenty-four grades 5 and 6 students participated; however, because of difficulty in obtaining participants, an unequal number of girls (n=16) and boys (n=8) were randomly assigned to each of four groups. An interviewer (the first

This study is based on a fourth-year honors psychology thesis that Barbara Virley O'Connor completed under Richard Walsh-Bowers' supervision. She is currently a doctoral candidate in clinical psychology at the University of Ottawa and may be reached c/o The School of Psychology, University of Ottawa, Ottawa ON K1N 6N5; e-mail: boconnor@uottawa.ca. Richard Walsh-Bowers is a professor of psychology at Wilfrid Laurier University, Waterloo ON N2L 3C5.

author) read each child a brief "reading helper" job description (see Appendix A) that was identical, except that one quarter of the children heard the pronoun *he*, one quarter heard *she*, one quarter heard *they*, and one quarter heard *he or she*. Then the interviewer asked each child to orally respond to the following questions:

1. How well do you think you could do this job? Why?
2. How well do you think a boy could do this job? Why?
3. How well do you think a girl could do this job? Why?
4. Is there any difference in the way a boy and girl could do this job? Why?

Following Hyde's design, the interviewer also assessed each child's understanding of the convention of using *he* as a gender-neutral pronoun by asking him or her to respond to these questions:

When you use *he* in a sentence, what does it mean? For example, if I say, "When a kid goes to school, he often feels excited on the first day," does that mean the kid is a boy, or does it mean it's a girl, or could it be either a boy or a girl? Why?

The children's responses were audiorecorded and transcribed for qualitative analysis. Following this we systematically assigned codes to identifiable ideas expressed in each question and then compared and contrasted the codes according to gender and pronoun group (Lincoln & Guba, 1985).

Overall, analyses suggested little support for the idea that using *he* in the reading helper advertisement lowered girls' expectations for success. Although they expressed more uncertainty about their personal ability than girls in the other conditions, the girls in the *he* condition did not see themselves as unable to do the reading helper job. Similarly, little support was found for the idea that using generic *he* in the job advertisement lowered boys' and girls' expectations of how well girls could do the job. Any differences in the children's expectations about themselves and others due to group membership were outweighed by consistent, positive expectations.

This lack of preliminary support for Hyde's conclusions may be related to the nature of the task that we presented to the children. In saying things such as, "girls spend more time reading," and "boys might not be as interested in the job," several children indicated that the reading helper task may have been biased in favor of girls. Nevertheless, we felt it was important to design a task the children could relate to rather than presenting them with a fictitious adult job that was completely removed from their daily experience. Indeed, the challenge facing our future work in this area is to design an investigative procedure for children that is neither inherently biased nor outside the realm of childhood experience.

Like Hyde (1984), we found that one half of the children realized that the pronoun *he* in the generic sentence represented either gender. However, Hyde deduced that a child fully understood this convention based solely on the child's *either* response. In contrast, we explored the children's knowledge of *he* as generic convention by asking them to tell us *why and how* they knew that the person in the sentence was either gender. Only two of our participants demonstrated an understanding of the convention; most could not explain *why* they knew the person could have been either gender. Some children concluded that

the person was either gender based on the contextual information provided. They reasoned, for example, that "anyone can be excited on the first day of school." Thus our preliminary findings in conjunction with Hyde's suggest that roughly one half of elementary school children do not understand the practice of using *he* to refer to both sexes. However, the qualitative nature of our analysis seems to render Hyde's conclusions tentative given the limited potential of a single response to represent a child's true understanding.

Ideally, future study will incorporate *both* qualitative and quantitative measures for a more thorough picture of the effects of gender-biased language on children's thought processes. Likewise, replication between and within different school boards (including more ethnic and socioeconomic diversity) will be imperative, because the present analysis was designed to generate hypotheses only and was therefore limited. Finally, alternating individuals of each gender who present information to the children and developing a manipulation check to ascertain the participants' suspicions about the study would be important.

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Appendix A
Description of Reading Helper Task

WANTED: READING HELPER

A new reading program is being started at your school, and helpers in grades 5 and 6 are needed. The helper must be willing to give *her (his; his or her; their)* time for at least two hours every week. *She (he; he or she; they)* will be asked to spend an hour with a grade 1 student every Monday and Friday afternoon. *She (he; he or she; they)* will help the younger student visit the library and choose reading books. In addition, *she (he; he or she; they)* will spend time reading with the younger student, and talking about the books they read together. The helper does not need to have excellent reading skills, but it is important that *she (he; he or she; they)* is responsible and that *she (he; he or she; they)* enjoys helping others.

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The Effects of an Academic Restructuring Program on Parental Attitudes and Behaviors

School dropout is a major social problem in Quebec. Approximately one third of adolescents fail to complete high school, and they also experience problems of delinquency, substance abuse, and poor employment (Hrimech, Théoret, Hardy, & Gariépy, 1993). By grade 3 it is possible to predict with fair accuracy children who are at risk for school dropout (Howard & Anderson, 1978). Typically such children are from lower socioeconomic families, and many perform more poorly than middle-class children on kindergarten entry. In addition, the parents of at-risk children frequently have low expectations for their youngster's academic success, which has also been associated with poor school success (Alexander & Entwisle, 1988; Gill & Reynolds, 1996). Many low SES parents are not involved in the life of the school (e.g., volunteering, attending meetings, participating in home-school associations) or do not engage in behaviors associated with greater academic success such as supervising homework or encouraging reading (Cormer, 1988).

Greater parental involvement has been positively associated with children's academic performance and more positive attitudes toward school (Herman & Yeh, 1983; Klimes-Dougan, Lopez, Nelson, & Adelman, 1992; Leung, 1993; Phillips, 1992). In fact early intervention programs have been effective in creating positive and successful school experiences for children (Barnett, 1996; Berrueta-Clements, Schweinhart, Barnet, Epstein, & Weikart, 1984) and promoting parent involvement (Cormer, 1988). Cormer and Haynes (1991) argue three mechanisms can increase parental involvement: (a) a school planning and management team of parents, teachers, administrators, professional (social workers), and nonprofessional (custodian) support staff; (b) a mental health team concerned with the children's behavioral and developmental needs; and (c) a parents' program for developing children's social and academic abilities.

Given the above literature we examined the impact of an innovative school restructuring program called an Ounce of Prevention in Schools (OOPS), on parental attitudes, expectations, and behavior regarding school involvement. The Family Support Team was a key component of this intervention program, which was designed to increase academic success for disadvantaged school-aged children (based on Success For All, Slavin, Madden, Karweit, Dolan, &

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Wasik, 1992). We hypothesized that parents of children attending the experimental program would develop more positive attitudes, higher expectations, and be more involved in school than control parents. This study is part of a larger project that has demonstrated significant improvement in experimental children's reading achievement compared with control students (Chambers, Abrami, Massue, & Morrison, 1997).

Ounce of Prevention in Schools (OOPS). The program involves restructuring schooling for at-risk students and providing family support to avoid academic failure. The foundation of the program is prevention and immediate, intensive intervention from kindergarten to grade 6. The program includes several elements: (a) a half-day kindergarten provides balanced, developmentally appropriate learning experiences with a strong emphasis on a print- and literature-rich environment (Bredekamp, 1987); (b) students are regrouped across grade levels into small (15 children) homogeneous groups for reading instruction, which includes two elements that have been effective in improving student's reading performance: (a) an eclectic approach that includes direct instruction in phonics (Brown, Pressley, Van Meter, & Schuter, 1996), and (b) instruction via cooperative learning (Abrami et al., 1995); (c) there are eight-week reading assessments, and children are regrouped if necessary according to current functioning, while students requiring individualized tutoring are identified; (d) for struggling students, one-to-one remedial tutoring for 20 minutes a day for eight weeks is provided (Wasik & Slavin, 1993); (e) the Family Support Team employs a systematic approach to increase parental involvement and assistance with their children's school work. This team (i.e., school principal, classroom teacher, reading teacher, program facilitator, school nurse, social worker) focuses on four components: (a) attendance program, or determining the reasons for absence and encouraging regular attendance; (b) school-based intervention by providing remedial help or counseling for a troubled child; (c) parent involvement, for example, requesting that parents listen to their children read orally on a daily basis, encouraging parent volunteers, organizing coffee sessions where teachers model effective reading techniques (Books and Breakfast); (d) service integration of community resources by involving social workers or community health workers as needed.

Participants and procedures. Parents, primarily mothers, of kindergarten and grades 5-6 children attending the experimental and three, highly similar control schools participated before and after the implementation of the OOPS project (30 experimental, 38 control parents). Families were mostly white, English-speaking, and from low SES backgrounds (based on classification as inner-city schools by the Ministry of Education). Forty percent of experimental schoolchildren were officially classified as special needs, based on Ministry of Education codes. Kindergarten and grades 5-6 parents were selected, because the OOPS program was introduced for the first time at these grade levels. Parents interviewed by telephone in September and June were asked 15 questions on four topics: (a) one question on parental involvement in homework (e.g., "Do you expect to help your child with homework?"); (b) three questions on the importance of involvement (e.g., "How important is it to you to be involved with your child's school work?"); (c) eight questions on current

experiences with schooling (e.g., "How often do you expect to attend school programs?"); and (d) three questions on expectations for child's school success (e.g., "How well do you expect your child to do in reading?"). Questions for the last three topics employed a 3-point response scale (1=not at all, 2=somewhat, 3=very much).

Findings and implications. Questions about (a) the importance of involvement, (b) current experiences, and (c) expectations were summed to obtain three subscale scores. Analysis of covariance was conducted on posttest scores with children's average age and pretest subscale scores employed as covariates. Children's achievement (PPVT, reading level) were also controlled for in the analyses. Results were: (a) *Help with homework*: At posttest, experimental parents reported helping their children more with school work than control parents, $F(1, 59) = 4.14$, $p<.05$ (adjusted means = .90, .67 respectively); (b) *Importance of involvement*: No significant differences were evident between the experimental and control parents at posttest on attitudes regarding the importance of school involvement, $F(1,59) = .16$, *ns* (adjusted means = 2.94, 2.95 respectively); (c) *Current experiences*: At posttest, there were no significant differences between the experimental and control parents on current experiences with school, $F(1,59) = .08$, *ns* (adjusted means = 2.39, 2.41 respectively); (d) *Expectations for success*: At posttest, experimental parents reported lower expectations for their children's academic performance than control parents, $F(1,59) = 4.2$, $p<.05$ (adjusted means = 2.36, 2.56 respectively).

Overall, the OOPS program had a small but important impact on the behavior of the parents of experimental children. Specifically, experimental parents reported helping their children significantly more with homework than control parents, which may be an indication that the parents were more involved and meeting one of the basic requirements of the OOPS program (i.e., listening to oral reading for 20 minutes per night). We expect such involvement will continue and over time and manifest itself in other forms (e.g., higher expectations for their children's success, greater presence in the school). Nevertheless, OOPS parents had lower expectations for their children's academic achievement after one year of implementation compared with control parents. Given the high percentage of special needs children in the experimental school, these parents may have been realistic in their expectations concerning their children's academic progress. The attitudes of experimental parents concerning the importance of education were not influenced by the intervention program. The high scores of all parents indicated a ceiling effect, and parents apparently had already placed high value on the importance of education. In addition, the measure may not have been sensitive enough to detect actual differences in the attitudes of experimental and control parents.

Unfortunately, the Family Support Team was organized some months after the introduction of the OOPS program. Initial focus was on the proper implementation of the reading program and only later was energy devoted to establishing this Team. Perhaps after a second year, differences in parent-home experiences may be apparent. However, one important consideration is that all the children were bussed to the experimental school, which may have created barriers for parents wanting to become more involved. In addition, the ex-

perimental school was located in an upper middle-class neighborhood some distance from the area of the city where the families lived and was not quickly reached by public transportation. Certainly these are important issues for the Family Support Team to address and it will have to work hard and creatively to overcome these barriers. Nevertheless, the fact that the experimental parents reported greater involvement with their children's homework suggests that initial expectations regarding increased parental involvement and concern are occurring through the OOPS program.

Note

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Generational Variability in the Understanding and Use of Technology

Every generation is distinguished by a set of defining characteristics, values systems, and lifestyles (Mills, 1987). The Baby Boom and Generation X cohorts are similarly separated by the different social contexts in which they came of age (Boyer, 1987; Lyons, 1994; Strauss & Howe, 1991). These contextual differences are further distanced by revolutionary changes in electronic communication technologies.

Exploring the cultural borders between Baby Boomers and Generation Xers, this article examines generational experiences with and relationships to electronic communication technologies as critical elements of culturally framed ways of understanding the world (McLuhan, 1967). The study is guided by the following question: How do Generation X members of a teacher preparation cohort perceive their relationship to electronic communication technology? A secondary question focuses on how the Generation X students' perceptions differ from the attitudes that their instructors probably have if they are Boomers. Assumptions about Boomers are drawn from the literature on that generation.

Shaped by radically different normative values and sociological conditions, the experiences of Baby Boomers differ appreciably from those of Generation Xers (Hayes, 1993). These differences are complicated by the advent and rapid proliferation of electronic communication technology and an esoteric new computer-culture language (Turkle & Papert, 1990). Most Boomers have developed computer literacy skills situated in employment requirements, professional needs, or personal interests (Reske, 1995); many Generation Xers have been deeply imprinted by a lifelong experimentation with and manipulation of communication technologies. Although significant differences exist within as well as across cohorts, the experience of Boomers and Xers may differ so radically that they do not share "basic assumptions about the world" (Ritchie, 1995, p. 12). This could have significant implications for teaching-learning

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environments where the teachers are largely Boomers and the students are largely Xers.

Methods

Teacher preparation students enrolled in a 1995 fall semester Foundations of Education course required at a large midwestern Research I university were invited to participate in the study. Ninety-one volunteered to participate. Primarily juniors and seniors, all of the students were members of Generation X and represented the mid-range of their generational cohort. Seventy-five percent of the participating students were females between ages 20-25 years and 25% were males between 20-27 years of age.

Consistent with naturalistic design, data were collected from multiple sources (Lincoln & Guba, 1985) including an open-ended questionnaire, informal interviews, and instructor's observation notes. The constant comparative method of analysis (Strauss, 1987) was used to understand and derive meaning from connections among the data. Patterns identified though linkages among the coded and categorized data were then organized into broad, inductively derived, descriptive themes.

Findings

Learning: Transition from novice to expert. The venues where Boomers and Generation Xers developed computer literacy skills and made transitions from novice to expert users differ dramatically. The evidence suggests that Boomers and Xers first experienced computer technologies at different stages of life, the former as adults and the latter as children. Many of the Generation X students in our study were introduced to programming as elementary students and refined their computer literacy skills throughout their school experience. In addition, most Xers were surrounded by the computer culture through video games and involvement in the work world. On the other hand, the literature indicates that some Boomers acquired literacy skills in formal classroom settings. Most acquired skills through professional development seminars, brief training sessions, informal tutorials, or manuals.

Information: Navigating with map and compass. For both Boomers and Generation Xers, television and radio represent primary tools for navigating myriad layers of information. Yet Boomers and Xers differ in other preferred information sources. Boomers depend more on newspapers for information than Generation Xers (Reske, 1995), whereas Xers access information through computer technology more than Boomers. One student in our study observed that through computer use she can "go anywhere in the world and learn about anything."

Boomers and Generation Xers rely on electronic communication technologies for information useful in traversing their public and private worlds. Although they may use the same tools to access information, Boomers and Xers process information in different ways. Generation Xers' immersion in the video games culture has significantly influenced their perception of the relationship between the individual and media technology (Provenzo, 1991). Through their interactive relationship with communication technologies and simultaneous access to multiple sources of information, Xers demonstrate an ability to con-

centrate on several sources of information concurrently and to process information quickly (Filipczak, 1994). For example, some students described multiple uses of computers including creation, reception, retrieval, and transmission of information.

Time: Charting the course. Many Generation X students believe communication technologies, particularly computers, make their lives easier and more time efficient. Our study respondents indicated that the ubiquity of communication technology affects their lives fundamentally and wholly. One student observed, "It is a way of life." Some students remarked that the usefulness of electronic communication technology lies in the time efficiency it offers in a fast-paced society.

Unlike Generation X students, for whom computer technology such as on-screen editing conserves time in preparing assignments, the literature suggests that some Boomers view computer and communication technologies as time-intensive. For these Boomers, electronic communication technologies represent a complicating work factor that lengthens tasks and delays completion of projects. Whether enthusiastic or reluctant sojourners in the computer culture, Boomers may require more time investment than do Generation Xers in developing computer literacy skills. That time investment, coupled with their educational introduction to this technology as adults, may account for a more critical perspective held by many Boomers regarding the efficiency of communication technologies.

Change: Adapting to new terrain. Through their accommodation of social change (Holtz, 1995; Ritchie, 1995) and their development of parallel thinking abilities (Filipczak, 1994), Xers may accommodate technological change with greater ease than Boomers. In our study, however, some Xers expressed disquiet about the rapidity of change. An opinion expressed by one male student, "It can be argued whether technology has made life harder or simpler," was echoed by a female student, "Although technology would seem to make life easier, I almost think it may cause more confusion and chaos." Stated succinctly by another student, "Technology is changing every day and it is very hard to keep up."

Generational experience in types and rates of change vary. Although many Boomers and Generation Xers share a concern for change, this concern differs in degree and, perhaps, in kind. Among some Boomers, a difficulty in accommodating change centers around a need to acquire computer literacy skills in a maelstrom of change. The disquiet expressed by some Xers appears to be focused on the rate of technological change and a concern for keeping up.

Implications for Practice

Cultural borders can impede teaching and learning. Awareness and instructional accommodation may reduce borders imposed by differences in understanding, use, and relationship to computer technology between Boomer instructors and Generation X students.

The findings of this study suggest several implications for practice. Instructors should (a) present complex problems that require applying computer knowledge and processing multiple pieces of information through a Problems Based Learning (PBL) format; (b) organize students into small work teams for

collaborative problem solving; (c) negotiate timelines for completion of tasks within set parameters; (d) maintain awareness of some Generation X students' concerns and needs for technology knowledge and skill building.

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Book Review

Interpreting Teacher Practice ... Two Continuing Stories. Renate Schulz. New York: Teachers College Press, 1997, 147 pages.

Reviewed by *Hans Smits*

> What, we might wonder, is the grand narrative behind the compulsive appeal of little stories? (Simpson, 1995, p. 29)

Whether in the popular media or in academic writing, we seem to be living in an age of stories. As writers and readers of educational research we might legitimately wonder what is revealed or not by the proliferation of the narrative form and what it means to engage in narrative research.

There are also questions about the meanings that may be derived from narratives, and whether narrative is as inclusive of the complexity of lived experiences as might be assumed. For example, Simpson (1995) asks whether narratives are a form of "half-knowledge," which ignore or omit broader, contextual issues (p. 17). And there may be questions, as Simpson suggests, about whether in some cases "little stories" really reintroduce or reaffirm "master narratives" rather than counter them. Such questions are certainly raised—although not all of them explicitly—by Renate Schulz's book *Interpreting Teacher Practice ... Two Continuing Stories.*

Schulz's work provides an example of what many writers have noted: that the turn to narrative is valuable and necessary as an antidote to the overrationalized qualities of modern life whereby "scientific practice created a sphere in which the dark and joyous forces of enchantment and meaning were banished, stilled" (Rabinow, 1996, p. 184). Feelings of disenchantment arose historically as a consequence, at least in part, of the application of scientific rationality to human practices and understanding. Technical rational approaches, it has been argued, did not foster more grounded understandings of particularly embodied and culturally specific aspects of educational practice.

Narrative forms of writing have thus responded to a desire for constructing fuller understandings of teaching practice, as is Schulz's stated intention in her study. As she demonstrates, narratives can provide a structure through which important understandings can be both communicated and in turn interpreted through reading in ways that abstracted conceptual or theoretical knowledge does not encourage or allow.

Moreover, Schulz reminds us of the deeply collaborative quality of narrative research. As she emphasizes through citing Noddings, for too long educational research has focused on research *on* teaching rather than *for* teaching. Thus researchers ought to establish relationships with those whose lives both provide stories for telling and challenge the institutionalized separation between theory and practice.

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However, the practice of narrative research is not immune to issues of representation, validity, and ethics. Determining the truth of narrative as written text is slippery indeed. As Schulz admits, the researcher may attempt to assume "interpretive authority," but does so at the risk of ignoring the collaboration necessary in the writing of stories and denying possibilities readers may provide in giving further meaning to research.

Freed from the context of actual observations and conversations, the narrative as written text proffers different readings and meanings, even for those whom the text nominally represents, as Schulz discovered. In his studies of interpretation and textuality, Ricoeur (1981) has emphasized the challenges in making the transition from an "oral situation" to the production of written text and its subsequent readings:

> The emancipation of the text from the oral situation entails a veritable upheaval in the relations between language and the world, as well as in the relation between language and the various subjectivities concerned (that of the author and that of the reader). (p. 147)

Schulz's story indeed confirms an "upheaval in the relations between language and the world" when the meaning and truthfulness of her narratives are contested through the particular readings they receive. The original intentions of the researcher and the subject of research failed as secure anchors for interpretation.

As Schulz recounts it, she spent a considerable period of time in the classrooms of two exemplary—by reputation—high school English teachers, James and Raymond. Her overt purpose was to discover how teachers interpreted and acted on curriculum change and how they understood and justified their own teaching practices. More particularly, she was interested in their responses to a curriculum that mandated a change from teacher- to student-centered approaches in the high school literature program.

She offered both her respondents opportunities to comment on drafts of her writing about their conversations and her observations. James was more or less satisfied, it seemed, with the final narrative that Schulz offered. Raymond, however, was not; he experienced considerable "anguish" about the way he read his portrayal in her narrative. As a response, Schulz devotes a chapter to Raymond's response, consisting of excerpts from his journal, as a way of balancing her own interpretations of his story.

Although *Interpreting Teacher Practice* does (re)present the stories of two teachers, Schulz's study is less about teaching practice than the dilemmas posed to the researcher when a story fails to resonate positively with the person whose story is being recounted. She testifies to the difficulties of doing narrative and collaborative research, namely, that concerns about ethics and representation are intensified rather than ameliorated. Misunderstandings may especially arise when the narrative depends on a collaborative relationship formed on the basis of a distinct split in responsibilities: that of researcher-writer and respondent-reader. Having assumed "interpretive authority" she ruefully discovered that narratives may be received quite differently from what was originally intended, despite a professed concern for the integrity of the central characters of her narratives. Hence, in the second half of her book,

Schulz turns to the questions of collaboration and the application of reading response theory as important elements of narrative research practice.

Schultz's recasting of collaboration in terms of an ethic of care, and the deprivileging of the role of the author in the interpretation of research are provocative. First, building on the work of Noddings and the application of an "ethic of care" to collaboration, Schulz argues for a "fidelity" in research collaboration whereby a research relationship is built on the basis of something like friendship, a relationship that would allow both concurrence and disagreement to surface in the writing of narratives. Reflecting retrospectively on her experiences, Schulz argues that final reports ought to be coauthored to avoid the kind of situations she encountered with Raymond.

Second, in discussing interpretation of narrative, Schulz argues for the importance of readers' contributions to elucidating meaning from narrative texts. Building on recent literary theories that assign importance to the reading of texts and the many ways texts may be interpreted, she argues for a "dialogic model of reading." Schulz argues convincingly that collaborative narratives particularly lend themselves—necessarily so—to a more participatory approach, not just in writing, but also in reading and interpretation. As she emphasizes, "the texts of collaborative narrative inquiry encourage a participatory stance that seeks to connect with the existence behind the text" (p. 139). It is this last point, however—"the existence behind the text"—that signaled my primary disagreements with Schulz's text.

First of all, I was not convinced about the stories of teaching practice and the extent to which they provided a more deeply etched portrait of the way teachers construct meaning in practice. In her rush to invoke "interpretive authority," Schulz was too hastily compelled to theorize her teacher-respondents' practices as "traditional transmission teacher" and as "interpretive teacher." By doing so, however, she ignored how practice may speak more for itself, how practice is often tacitly theorized or, for that matter, how both practice and theory may be ideologically constructed. As well, the application of theoretical constructs to the descriptions of lived experience was not convincing, as both James' and Raymond's practices seem much more complex than implied by the labels Schulz uses.

Second, although Schulz stressed the importance of "the interplay of biography, beliefs, and teacher practice," the narratives in her book do not adequately reflect that interplay. Perhaps Schulz's original study, from which the book was derived, gave greater attention to elements of the interplay. In the book the stories are primarily about James and Raymond in the classroom, with some reference to their own biographies. However, this is not fully explored in ways that provide a deeper—and a social-historical sense—of subjectivity.

A more serious problem, though, is that Schulz does not take up the complexity of identity and thus, wittingly or not, seems to suggest a simple causal relationship between one's biographical experiences and practice. Saying that one's biography and beliefs affect one practice is not the same as showing how this in fact occurs, or how a person himself or herself creates a story of the self from diverse sources. As Britzman (1997) has written,

> identity is not the sum of a singular and conscious act but is rather a social relation caught up—even as it catches it itself—in the detours of history, memory, and communication. (p. 31)

Schulz does focus in her discussion of narrative meaning on the importance, for example, of metaphor in the construction of narratives and in the formation of identity. However, she does not explore the metaphoric qualities of teacher theorizing or even, for that matter, the language of theoretical constructs and how language is implicated in how events in life become understood. By unproblematically emphasizing a relationship between biography and practice, Schulz inadvertently, I think, affirms the modern "master" narrative of the person making himself or herself (Taylor, 1989). Simpson's (1995) caution is appropriate here: that there may be a tendency in narrative research "for the tellers of little tales to smuggle back ... precisely the most uncritical and traditional formations of self and subject" (p. 30).

Third, and again referring to "the existence behind the text," I was not entirely comfortable with Schulz's enthusiasm for "mutuality" in the collaborative relationship. I am not sure that the responsibilities of university researchers and classroom teachers can be reduced to a notion of mutuality. They are different but complementary, perhaps. Further, I was somewhat troubled by Schulz's foreclosing too easily on the researcher's responsibilities and perhaps overemphasizing the responsibilities of readers.

Here I refer back to Simpson's notion of telling stories as half-knowledge. Although it is important to provide a means and scope for teacher voice, speaking for teachers rather than about them implies more than just letting the narratives of practice stand on their own. What is missing in Schulz' narratives of practice is a deeper sense of how contextual elements such as culture, economy, ideology, gender, and social class play out in the way teaching is practiced and how practice becomes understood in language. Thus there may be another half-knowledge that can be placed up against the stories of particular lives and experiences.

Clandinin comments in her foreword that the most compelling aspect of Schulz's study is its telling of "a story [of Schulz] as researcher growing into the complexity of what it means to engage in collaborative narrative inquiry" (1997, p. viii). I fully agree that this makes Schulz's study a valuable contribution to the dialogue about engaging in narrative and collaborative research. To borrow the word from her title, it is a dialogue worth *continuing*.

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The Alberta Journal of Educational Research *Vol. XLIV, No. 2, Summer 1998, 119-119*

Literacy in the 21st Century: Introduction

The articles in this theme issue were presented as papers, panel discussions, and poster presentations at a conference sponsored by the Literacy in the 21st Century Research group (Faculty of Education, University of Alberta) in conjunction with the Literacy Coordinators of Alberta and the Alberta Association for Adult Literacy. The conference brought together literacy researchers and practitioners to share literacy research and exchange views from a multidisciplinary perspective.

Educational researchers no longer view literacy solely as a repertoire of reading and writing skills, but rather as a cultural, social, and political phenomenon. This broad view of literacy is reflected in the work of the Literacy in the 21st Century Research group. A research prospectus developed by the group notes the revolutionary changes in literacy along with the increasing diversity and complexity of Canadian society. The specific demands of different environments affect how people approach literacy tasks, and how people respond to these demands is influenced by diverse factors. As envisaged by the Research group, the literacy research agenda for the 21st century will focus on literacy for democracy and equality for all Canadians in an increasingly diverse society and on comprehensive programs that involve collaboration of educational, community, health, and other agencies.

The complexity and multidimensional nature of literacy is evident in both the individual papers and the papers as a whole. The research topics of the conference ranged from learning to read and write in schools to literacy in community and workplace contexts. The articles reflect multiple facets of literacy: basic, functional, scientific, information, and critical. Authors also portray the diverse faces of literacy learners, including those in ESL and Aboriginal contexts. They write about the challenges facing learners, teachers, researchers, companies, and community service providers. The articles challenge researchers and educators to rethink traditional notions about the nature of literacy learning and about who should be involved in researching and facilitating the literacy learning process.

We wish to acknowledge and express appreciation to the Faculty of Education, Advanced Education and Career Development, and the National Literacy Secretariat for their financial support of the conference and of this literacy issue of **ajer**. We also acknowledge and appreciate the contributions of all participants at the conference, both those who made presentations and those who engaged in dialogue related to the ideas presented.

We are particularly grateful to the following individuals who contibuted their time to review manuscripts for this issue of **ajer**: Jim Anderson, Mona Beebe, Jim Bell, Bob Bruinsma, Cynthia Chambers, Mary Clare Courtland, Mary Cronin, Mary Dayton-Sakari, Trevor Gambell, Herb Katz, Jenny Horsman, George Labercane, Carol Leroy, Rod McLeod, Robin Millar, Claudia Mitchell, Linda Phillips, Maurice Taylor, Adele Thomas, Audrey Thomas, Serge Wagner, Angela Ward, and Helen Woodrow.

Grace Malicky and Mary Norton

The Alberta Journal of Educational Research *Vol. XLIV, No. 2, Summer 1998, 120-134*

Margaret Hunsberger

Penelope Bailey

and

K. Alix Hayden
University of Calgary

The Diverse Faces of Critical Literacy: Only Knowledge or Also Social Action?

This article arises from work done in a graduate seminar on critical and cultural literacy. The key questions are: What does it mean to be literate? and What (in)justice is done in the name of literacy? They are first explored through two examples that were researched during the course (scientific literacy in schools and technological/information literacy in society) and then expressed in the resulting, and still evolving, conceptualization of literacy and its implications. We begin with the stance that literacy is typically placed somewhere along a continuum ranging from viewing literacy as a set of skills to viewing it as a basis for rational and ethical action. We conclude with the issue of transforming literacy critique into ethical action.

Cet article est issue des discussions d'un séminaire gradué sur l'alphabétisation critique et sur l'alphabétisation culturelle. Les questions clés sont: Quelle est la signification d'être alphabétisé? et, Quelle (in)justice commet-on au nom de l'alphabétisation? Ces deux questions se font sondées dans le contexte de deux exemples recherchées pendant un cours qui traitait de l'alphabétisation scientifique dans les écoles et de l'alphabétisation en information et en technologie dans la société. Ces deux questions dévoilent toujours des notions approfondies de la conceptualisation de l'alphabétisation et ses implications. Nous débutons l'article en situant l'alphabétisation sur un continuum qui, à un bout, perçoit l'alphabétisation comme une série d'habiletés (surtout cognitives) et, à l'autre extrémité, comme étant la fondation de l'action rationnelle et éthique. En conclusion, nous traitons de la notion de la transformation de la critique de l'alphabétisation comme étant une action d'éthique.

> Literacy is a two-edged sword. It can be repressive or liberating. (Hoyles, 1977, p. 29)

Educated persons, heavily reliant on literacy skills in daily life, usually unquestioningly assume that literacy is both necessary and desirable. It is hard to imagine life without it. But the specific effects of literacy of individuals and

Margaret Hunsberger is a professor of language education and curriculum at the University of Calgary. She is presently working with the team developing Calgary's new teacher preparation program, and completing with two colleagues a research project on reader response.
Penny Bailey is a doctoral student in science education at the University of Calgary. She recently completed a term as the conference director of the ATA Science Council. She is interested in examining "scientific literacy" in her doctoral work.
K. Alix Hayden is a liaison librarian at the University of Calgary where she teaches information literacy workshops that focus on information retrieval and the Internet. She is also working on her PhD in education, focusing on developing a theoretical framework for information literacy policies.

societies is a matter worth consideration. How is literacy liberating? Is it possible for it to be repressive, and if so, in what way?

Literacy is a heavily used term, with many meanings and implications. Therefore, it seemed useful to spend a term examining its political, personal, and practical effects. This was done through a graduate course "Critical Foundations in Literacy," which was taught by Margaret and in which Alix and Penny were students.

In this article we outline the nature of the course and the sort of questions with which we began; we then give exemplars of specialized literacies explored in order to show how fundamental questions about literacy and our obligations as educators kept returning for us. Finally, in reflecting on what we learned, we offer a representation of how we have come to think about literacy and the fascinating, troubling issues it raises. We hope that the heuristic model we have constructed enables the envisioning of new questions for research in individual literacies and new possibilities for the significance of literacy research.

The Course (Margaret)

The intent of this graduate course, offered in winter term 1997, at the University of Calgary was that together professor and students would explore some of the implications of literacy on both societal and individual levels. What does it mean to be literate? What (in)justices are caused by literacy? Many specialized literacies are currently considered important in our culture. What are the conceptualizations (or ideologies)—and hence the implications—of these terms? And particularly, What are our social and professional responsibilities with regard to literacy?

The first three sessions of the course laid the theoretical groundwork for thinking about literacy: a consideration of conceptual frameworks to guide our reading and discussion and the beginning of a consideration of the political aspects of literacy. In subsequent classes specialized literacies were examined (e.g., adult literacy, computer literacy, native literacy); in addition to those topics directed by the instructor, each student led one seminar in an area of particular interest. In general students came wishing to examine the potential meanings of various specific literacies with which they had come into contact in their professional lives as educators and which they were interested in exploring in their graduate research. But always the talk among us took into account the cultural and critical ramifications of positions held by the authors of articles we were discussing.

In any study of literacy it is conventional for readers or listeners to begin by asking for a definition of literacy and for authors or speakers to provide one. This is completely understandable given the many and slippery usages in vogue. However, in conceptualizing the course I wanted to avoid a situation where students felt required to write a definition or to defend a particular view. Rather, I wanted them to be not only free, but strongly encouraged to rethink constantly what is entailed, both explicitly and implicitly, in shifting and expanding understandings of literacy, its role, and its power.

Therefore, I began the course by offering students not a series of definitions, but two frameworks that show the bases in which many definitions are grounded. One of these is Scribner's (1986) well-known metaphorical descrip-

tion of literacy as adaptation, as power, and as a state of grace. The other, which I generated, suggests in brief that many definitions of literacy are grounded in one of four views: (a) levels of competence (e.g., reading at a grade 10 level); (b) purpose/functions such as developmental or functional views; (c) specialized literacies; or (d) emphasis definitions such as psychological/individual emphases versus social/cultural bases.

In using these frameworks to examine how literacy has often been described, students began to grapple with the complexities involved in literacy and its implications and thus readily became involved in critiques of different positions. Given the different specific educational interests among the course participants and the differing literacy goals in various research projects we were reading about, students in class discussion thoughtfully and critically examined such matters as whose interests are served and what is actually accomplished in literacy projects. These questions were pursued through each student's work on a particular specialized literacy.

In the sections below, information literacy and scientific literacy are examined briefly to illustrate the conceptualizations of literacy at work and the kind of questions or tensions that arise. Alix is an academic librarian as well as a doctoral student, and in work leading toward her dissertation she has been wrestling with the concept of information literacy. Penny, also a doctoral student, is intrigued with what scientific literacy entails. Links are then suggested to other specialized literacies.

Information Literacy (Alix)

Today we live in the Information Age. We often hear about the paperless office and the virtual university. We are bombarded with massive amounts of information each day. "To claim a place in the Information Age, some librarians propose a new professional responsibility that would change the nature of work for school and academic librarians" (Strege, 1996, p. 18). Many academic librarians are worried about the future of their profession if all citizens have unlimited access to information from their homes. A Bill Gates world with ubiquitous access to information is somewhat frightening for librarians as they watch their profession become deskilled and undervalued. Librarians are no longer the gatekeepers of information and many fear that they will not be the gateways to information in the future.

Librarians have responded to the concerns about the Information Age by "proposing a new type of literacy that only they can provide" (Strege, 1996, p. 44). This new literacy is information literacy.

Information literacy entails finding, evaluating, using, and subsequently communicating knowledge. The current literature suggests that information literacy involves a complex set of skills that allow learners to express, explore, question, and understand the flow of ideas among individuals and groups in a vastly changing technological environment.

The American Library Association's (1989) definition of information literacy is the one most often used today: "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (p. 1). It is readily ap-

parent that information literacy is narrowly defined and seems to be concerned only with the skills one needs to survive and thrive in the Information Age.

Information Literacy in the Academic Setting

The document *Transforming Higher Education* (Dolence & Norris, 1995) presents the premise that if higher education institutions do not get in tune with the Information Age, they are doomed to failure if they wish to meet the needs of their clientele. Academic librarians are currently focusing their efforts on information literacy as a means of empowering students with the requisite skills to succeed in the Information Age.

Academic libraries have begun to incorporate information literacy into their planning documents, strategic directions, goals, and mission statements. For example, the libraries of two of Alberta's largest research institutions discuss the importance of the academic library providing information literacy opportunities for their university community.

> Information literacy is a key component of teaching in the academic environment. Through formal training and individual consultation, the library lays the foundation for lifelong learning in all disciplines and helps learners to develop and apply sophisticated models of information collection and evaluation. (University of Calgary, 1997)

> We enable the learner to find needed information in a timely manner. We see information literacy, that is, the ability to be self-sufficient and self-motivated in locating, accessing, using, and evaluating information, as a necessary skill in the information age. (University of Alberta, 1996)

The Promises of Information Literacy

Information literacy is seen as a beacon of hope for students today. It promises them the skills necessary for success, power, and job security. Researchers in the field of information literacy make such claims as: it is a necessary survival skill for the information age (Curran, 1991); information literacy forms the common prerequisite for lifelong learning (Olsen & Coons, 1991); in order for students to be successful, they must acquire (or learn) information skills (Yee, 1991); socioeconomic mobility is determined by the ability to gather information independently and appropriately (Arp & Kenny, 1990).

It appears that the economic claims attributed to information literacy are similar to those attributed to literacy generally. In addition, charges against information illiterates are similar to those against illiterates. Persons who are less information literate will not lead as productive lives, and they will experience few rewards and little financial success. A functional view is inherent in the definitions of information literacy as well as in its benefits and outcomes (Strege, 1996).

Academic librarians have championed information literacy to the forefront of their academic institutions through advocating the economic outcomes and benefits of information literacy for learners. Information literacy seems to be the answer to the woes of university administrations whose graduating students are unable to secure a place for themselves in the Information Society. The focus of information literacy is very much on the individual's achievements and successes rather than on the possible benefits for society.

Current Academic Information Literacy Practice

A functional view is inherent in the definitions of information literacy as well as in its benefits and outcomes (Strege, 1996). A review of the literature, as well as a review of current practice evidenced through discussions on "information literacy listservs," reveals that most librarians have adopted the term *information literacy*, but that their practice still reflects standard bibliographic, or library, instruction.

Most of the published literature describes information literacy instruction programs that are skill-based and focus on functional approaches. It appears that librarians have simply substituted the traditional term *library instruction* with the politically charged term *information literacy*. Librarians are also endeavoring to develop checklists of skills for determining if students are information literate. Most information literacy classes and programs appear to focus on only one aspect of information literacy—skills for accessing information.

What Next?

Information literacy appears to have a twofold objective: one is to empower learners and the other is to help librarians maintain control over information access. These two objectives are in tension with one another; the more learners are empowered, the fewer librarians are needed. The literature does not address these concerns. Perhaps the narrowness of the accepted definition of information literacy limits the possibilities that librarians can offer their students.

Academic librarians have not investigated information literacy from a conceptual or theoretical perspective. They have not questioned the values or assumptions implicit in the narrow definition of information literacy. Rather, they have focused their efforts on developing and describing information literacy programs that are drenched in skills-based approaches.

I came to the course questioning information literacy. The course unfolded some of the underlying assumptions that I feel must be critically examined by librarians. These assumptions include:

- Information literacy is not content-specific: it appears throughout the literature that academic librarians can provide generic information literacy courses which will provide students with the necessary skills to succeed in the Information Age.
- Information literacy can be measured and evaluated objectively. Many propose that a checklist of appropriate skills and capabilities may be presented to individuals to determine their level of competence.
- Librarians are solely responsible for providing information literacy instruction. One of the key components of information literacy is the ability to evaluate content. It is currently the underlying expectation that in information literacy programs, librarians teach students how to evaluate content critically rather than calling on content experts (such as faculty).

It is tempting to outline what information literacy should ideally entail in light of the underlying assumptions mentioned above. However, given the lack of theoretical research in this area it is premature do so. My doctoral research involves deconstructing the term *information literacy* and developing a theoretical model for what constitutes information literacy couched with the domains

of literacy, information, and knowledge. These domains have been selected as foundations for the model because they encapsulate how an individual comes to construct and organize knowledge.

Information literacy is currently viewed as a wonderful ideal, and one that should be encompassed by academic librarians and their institutions wholeheartedly. Academic librarians, however, need to view the bandwagon of information literacy with skepticism. They and others need to be in a position to see through the implications of information literacy policy statements (such as those presented above) and information literacy definitions in a systematic way. Information literacy cannot be studied by reviewing current practices of successful or unsuccessful programs; rather, it needs to be studied from a theoretical perspective. Librarians need to step back from their instructional routines and critically question what information literacy is and how they may be leaders in the field of information literacy. I hope that my doctoral research will take academic librarians one step closer to determining what information literacy should ideally entail.

Scientific Literacy (Penny)

Over the past several years I noticed the phrase *scientific literacy* used as a composite aim in various school programs of study. More recently the phrase has figured prominently in documents concerning national science curriculum standards in the United States and Canada. I refer here to Project 2061 (American Association for the Advancement of Science [AAAS], 1989), the follow-up *Benchmarks* document (AAAS, 1993), and the more recent *National Science Education Standards* document (National Research Council [NRC], 1996), and in Canada to the recently published Pan-Canadian protocol for school science (Council of Ministers of Education Canada [CMEC], 1997), which among other things seeks to define scientific literacy for the nation. Begun in February 1995 by the CMEC, the Pan-Canadian Project has produced a protocol for use by curriculum designers across the country for crafting curriculum documents at the provincial and local level. The final document was released in October 1997.

In these documents the term *scientific literacy* was not clearly defined, but served as an overarching aim to be addressed through meeting lists of more specific goals drawn from the latest thinking in the field of science education. Science educators in general use the term *scientific literacy* to denote everything students should come to know and understand about science as a result of their years of schooling. Roberts (1983) writes that scientific literacy has a composite meaning and serves as a slogan or rallying cry for curriculum reform.

As a slogan, the term resists definition. Yet scientific literacy is a metaphor. The inclusion of the word *literacy* in the term renders it particularly powerful as a rallying cry. We all wish our children to be literate. I came to the course looking for some deeper meaning for the term *scientific literacy*—one that would offer theoretical justification for linking the words *scientific* and *literacy*.

Scribner's (1986) landmark article served as a useful heuristic tool for initial exploration of the literacy research. She writes that literacy is socially defined. The enterprise of defining literacy is one of assessing what counts as literacy in a given social context. Scribner outlines three metaphors for literacy as it is

often discussed in the field: literacy as adaptation, literacy as power, and literacy as a state of grace. As in the area of literacy, conceptions of scientific literacy abound in science education (Driver, Finch, Millar, & Scott, 1996; Roberts, 1982, 1983; Roberts & Ostman, in press; Yager, 1989). I found Scribner's (1986) metaphors applicable to categorizing descriptions of scientific literacy in the science education literature as well. I drafted a theoretical typology to link Scribner's metaphors with constructs of scientific literacy available in the science education research literature (Bailey, 1998).

In his background article for the Science Council of Canada study (Science Council of Canada, 1984), Roberts (1982, 1983) identifies seven curricular emphases that have been apparent in science education practice in North America in the 20th century. A curriculum emphasis is "a coherent set of messages to the student *about* science (rather than *in* science) ... which provide the answer to the student question 'why am I learning this?'" (Roberts, 1982, p. 245). A curriculum emphasis is a meta-message concerning what science instruction is for and about, which accompanies the teaching of science content. Such meta-messages can be communicated to students explicitly or implicitly. Roberts (1982, 1983) states that he developed his category system of curriculum emphases inductively through examining North American curriculum policy statements and school science textbooks from the previous 80 years. Like Scribner (1986) in reference to her literacy metaphors, Roberts writes that the emphases describe what has been tried in science education curriculum documents, but are not exhaustive as to what is possible in science education. Roberts' emphases include everyday coping; the structure of science; science, technology, and decisions; scientific skill development; correct explanations; self as explainer; and solid foundation. Also like Scribner (1986), Roberts argues that no one curriculum emphasis should be favored in curriculum policy-making over any other. All are defensible. Science programs should expose students to as many emphases as possible in the course of their school years.

Yager (1989) contributes a concise statement of possible justifications for school science. These were the bases for his Project Synthesis. This project sought to point to new directions in school science through analysis of the results of a national school science assessment and of three national surveys pertaining to science education in the US. Yager's four justifications for school science include science for resolving current societal issues (science education should develop citizens prepared to address science-related issues in society); science for preparing for further study (science education should help students who are likely to pursue further science studies or professions in science to meet their academic needs); science for assisting with career choices (science education should make students aware of the variety of science- and technology-related careers available to persons of varying interests and abilities); and science for meeting personal needs (science education should prepare students to use science for coping in a technological world). The Project Synthesis report concluded that the only apparent justification for school science programs of the time was preparation for further study.

Table 1 schematically relates Roberts' (1982, 1983) science curriculum emphases and Yager's (1989) justifications for school science to Scribner's (1986) metaphors for literacy. It is difficult to draw one-to-one relationships between

constructs from different theoretical frameworks, and this is not my intention. I do, however, argue a basis for drawing relationships between the different literacy conceptions in the table. Scribner's (1986) literacy as adaptation is concerned with literacy education to assist students in coping with the demands of their daily life and is linked to human resource development and economic growth. Therefore, I would associate the literacy as adaptation metaphor with Yager's (1989) science for meeting personal needs and science for assisting with career choices justifications for school science. Roberts' (1982, 1983) everyday coping is obviously related to the daily-literacy-demands element of the literacy as adaptation metaphor. With respect to the human resource development/economic growth element of this metaphor, one must also consider which science curriculum emphases would develop the scientific literacy (or literacies) necessary for students to obtain jobs in the science and technology sector. I would argue that a solid foundation of science content knowledge, along with some scientific skill development, typically developed through a predominantly correct explanations approach in conceptually crowded upper-level high school science courses would fit the bill. These could collectively be considered a solid foundation emphasis with respect to obtaining employment in science-related careers. Authors including Yager (1989) and May (1992) argue that this is currently the dominant approach to science education in North America. The literacy as power focus on emancipation and social reconstruction links this metaphor somewhat with Yager's science for resolving societal issues and in turn with Roberts' science, technology and decisions emphasis. The latter two perspectives on scientific literacy seem markedly less radical in their perspective than, for example, Freire and Macedo's (1987) work in literacy for critical consciousness. Yager and Roberts contemplate critical assessment of social issues apparent in one's world as a voting citizen. Freire and Macedo (1987) suggest working to change one's social world fundamentally. Overthrowing those in power (as opposed to voting for or against them) may be part of this scenario.

Like the previous metaphor, Scribner's (1986) methaphor of literacy as a state of grace serves to suggest an expansion on the possibilities for scientific literacy suggested by Yager's (1989) typology, in particular. This emphasis of

Table 1
A Comparison of Conceptions of Literacy and Scientific Literacy

Scribner's (1986) Literacy Metaphors	*Yager's (1989) Justifications for School Science*	*Roberts' (1982, 1983) Curriculum Emphases*
Literacy as Adaptation	Science for Meeting Personal Needs, Science for Assisting with Career Choices	Everyday Coping, Solid Foundation, Scientific Skill Development, Correct Explanation
Literacy as Power	Science for Resolving Current Societal Issues	Science, Technology, and Decisions
Literacy as a State of Grace	Science for Meeting Personal Needs, Science for Preparing for Further Study	Self as Explainer, Structure of Science

this metaphor on self-actualization through coming to know makes Yager's justifications for science education seem somewhat mundane. His science for meeting personal needs and science for preparing for further study go only part way in expressing the purpose for literacy education captured in this metaphor. Indeed, this metaphor suggests an additional justification for science education that might be called "science for coming to know one's world." This metaphor is addressed through the self-as-explainer focus on coming to know science as one way of explaining one's world and through the structure-of-science focus on learning about science as an intellectual enterprise.

I used this typology as a theoretical framework for an analysis of the final draft of the Pan-Canadian protocol document. What conception of scientific literacy does this document imply as a basis for curriculum reform of school science in Canada? Because the final draft of the Pan-Canadian protocol has only recently been released, my analysis of it is preliminary. A number of features of the document lead me to conclude that its implied conception of scientific literacy is instrumental, designed to produce the (relatively uncritical but skilled) workers in the science and technology sector of tomorrow. Statements in the introductory section of the document link science education and scientific literacy in Canada to the nation's relative place in the global economy. The document is organized around four sets of goals dealing with science-technology-society-environment (stse) relationships, knowledge (or content), skills, and attitudes. Attitude goals emphasize values such as accuracy in one's work and safety in the lab—attributes of a desirable future worker. Stse goals are considered parallel to the other sets of goals. Goals in the stse category emphasize the everyday application of science and technology and careers in this sector of the economy. Critical perspectives on the role of science and technology in society are deemphasized. Knowledge goals are divided into traditional subdisciplines in science—life science, physical science, and earth and space science. This feature and the sheer number of knowledge and skills goals indicate a curricular focus on preparation for further science study, culminating perhaps in the student's taking on a career as a science specialist. Roberts (1982, 1983) calls this a *solid foundation* curriculum emphasis (or conception of scientific literacy). Scribner (1986) terms such a conception *adaptation* (to everyday life and the world of work).

My experience in the literacy course permitted me to step outside the discourse of science education to consider the possible meanings of scientific literacy from a broader perspective offered by literacy research. Through constructing a theoretical typology relating an important article categorizing understandings of literacy as a whole with notions of scientific literacy, I was able to see the narrowness of the notion of scientific literacy implicit in a new national curriculum protocol for school science. While drawing on the power of literacy as a phrase and metaphor, the Pan-Canadian protocol for school science has put forward a notion of science education with only a fraction of the possibility suggested by the phrase *scientific literacy*. This notion of scientific literacy is centered on science education for the development of skilled workers in the science and technology sector of Canada's economy. The theoretical typology I developed points to conceptions of scientific literacy that have been deemphasized in the development of the Pan-Canadian protocol, conceptions

that would address Scribner's metaphors of literacy as power and literacy as a state of grace. I hope that the discussion of science curriculum reform, begun in recent regional meetings to review drafts of the Pan-Canadian protocol, continues in the science education community. This dialogue should expand to include various and alternative possible conceptions of scientific literacy and to imagine their curricular expressions.

Other Specialized Literacies

The two examples we have used of specialized literacies have in common the idea that they are literacy *about* something: literacy about science, literacy about information. Other usages may have more to do with the development of reading and writing abilities in particular situations, for example, family literacy involves introducing children to reading and writing in the home; prison literacy is concerned with the kind of education programs available in prisons.

Those two examples make a further interesting contrast in that family literacy occurs in an atmosphere of hope and promise; we hope the young child is being started on a journey of success with literacy and enjoyment of what it can contribute to life. By contrast, prisoners are persons who have lost out in society in one way or another, and prison literacy is fraught with a tension about whether its purpose is mostly to keep prisoners occupied, however mindlessly, or whether it should be an act of potential liberation by giving prisoners knowledge and ability with which to help rebuild their lives on release. In the contrast between family and prison literacies, the warm fuzzy and the cold prickly sides of literacy education are too often apparent.

Family literacy is really about empowering children to take their places in society in terms of both their individual achievements and their potential contributions to a democratic society—it is working toward literacy as a state of grace (Scribner, 1986). By contrast, a study by Selme (1997) showed that although some teachers in prison settings genuinely want to empower their students in the sense of allowing them to use reading and writing abilities to improve and enrich their own lives, there is also in the system an unexpressed but real fear of prisoners becoming empowered in any way at all. (For a further consideration of the issues involved in prison literacy, see Selme, 1997.)

Although these differences in usage of the term *literacy* are of consequence, the core issues we are addressing remain across usages. In each case skills are needed, but that is only a small beginning; in each case there is the question of how political influence or control is exerted on the situation; in each case persons are heavily influenced by the social and cultural context in which they live; a key factor is always the critical judgment individuals are willing and able to exercise; and most especially, individuals choose the specific action or inaction they find appropriate to address concerns.

An Evolving Framework

Literacy is a complex concept that can be examined through many lenses (educational, aesthetic, sociological, political, philosophical, cultural, economic, critical, etc.). But there is necessarily an educational component; as educators all the students in the course began with a sense that at the core of literacy is a required component of skill in reading and writing. The elementary schoolteachers in the group were particularly aware of this, because an important part

of their daily work is helping children to become readers and writers. Indeed, one view of literacy is to see it as competence in the 3 Rs, that is, as a set of basic educational skills.

Thus it was interesting that as we examined several specialized literacies, we were struck by the prevalence of skills/technique-based notions of literacy implicit across these specialized literacies. In learning to use computers, keyboarding skills become an issue. Similarly, science teachers are concerned that students learn basic concepts such as the equation for work and manipulative skills such as adjusting microscopes and measuring and mixing liquids or powders with accuracy and without accidents. Library research involves a set of cognitive skills such as knowing how to use search tools to find information. That is, complex cognitive and psychomotor skills are involved in even the most basic aspects of reading and writing, and the number, variety, and complexity of skills increase rapidly when richer conceptualizations of literacy are held. Figure 1 presents this view with skills and techniques at the center leading into any particular form of literacy under consideration. Our discussions of literacy frameworks made clear that these skills-based approaches represent only a narrow subset of the possible meanings promised by the inclusion of *literacy* in their titles; they are concerned only with levels of competence as shown by ability to function in fragmented practical tasks.

The opportunity to compare views of literacy with educators in different disciplines during the course was useful. The traditional fragmentation of the literacy field into areas such as family literacy and workplace literacy has perhaps served to reinforce the lack of communication among those involved in the study and practice of particular areas of literacy. Therefore, trends such as an emphasis on skills in specialized literacies would not be apparent. This realization leads us to suggest further research in literacy along several lines. Trends and disparities across specialized literacy fields need further study. Our experience in the critical literacy course caused us to question relationships between pairs of literacies; for example, what is the relationship between family literacy and scientific literacy?

Students in the class rapidly began to wonder about how literacy affects individuals and societies and to question some personally held assumptions.

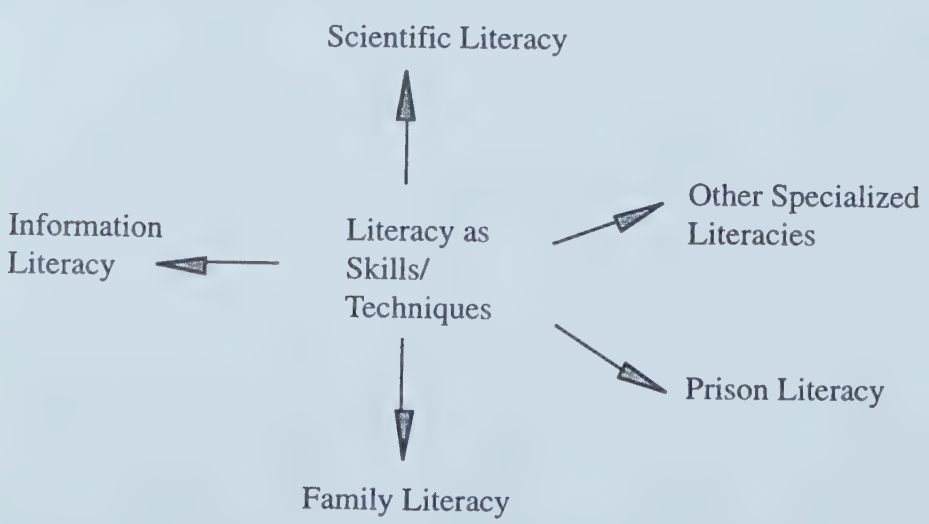


Figure 1. Skills and techniques are basic to all literacies.

This theme of critique and query pervaded the course. As the three of us reflected further, we represented (at this point in our thinking) the larger concerns as shown in Figure 2, with the three layers of the model indicating layers of contextualization.

The star center represents the interrelationships among specialized literacies; any specialized literacy is related to any other. These specialized literacies are embedded in the larger field of literacy itself, which is in turn embedded in the larger society. The layers of the model are related reflexively to each other. Each literacy term, by its very existence, necessarily influences how the other terms are viewed. For example, society determines in part how literacy is understood and valued, and society also is determined in part by the extent and quality of the literacy practiced in it.

We began our discussions of literacy by considering two frameworks that structure the notions of literacy currently at play in North American society. We feel the need to continue our questioning of literacy by imagining what other conceptions of literacy are not included in these frameworks, what conceptions have not achieved popular acceptance, and why this is so. In raising these sorts of questions, we have begun to address the obverse side of the society-literacy connection. We are now considering how we as literacy educators can move beyond critique of specialized literacy fields in the traditional conceptions of literacy to act to transform the way society conceives literacy.

Therefore

Injustice is caused when a narrow view of literacy is perpetuated by a powerful group in a specialized area or in the broad field of literacy itself. Those who hold the power can write the definitions and requirements so as to exclude any

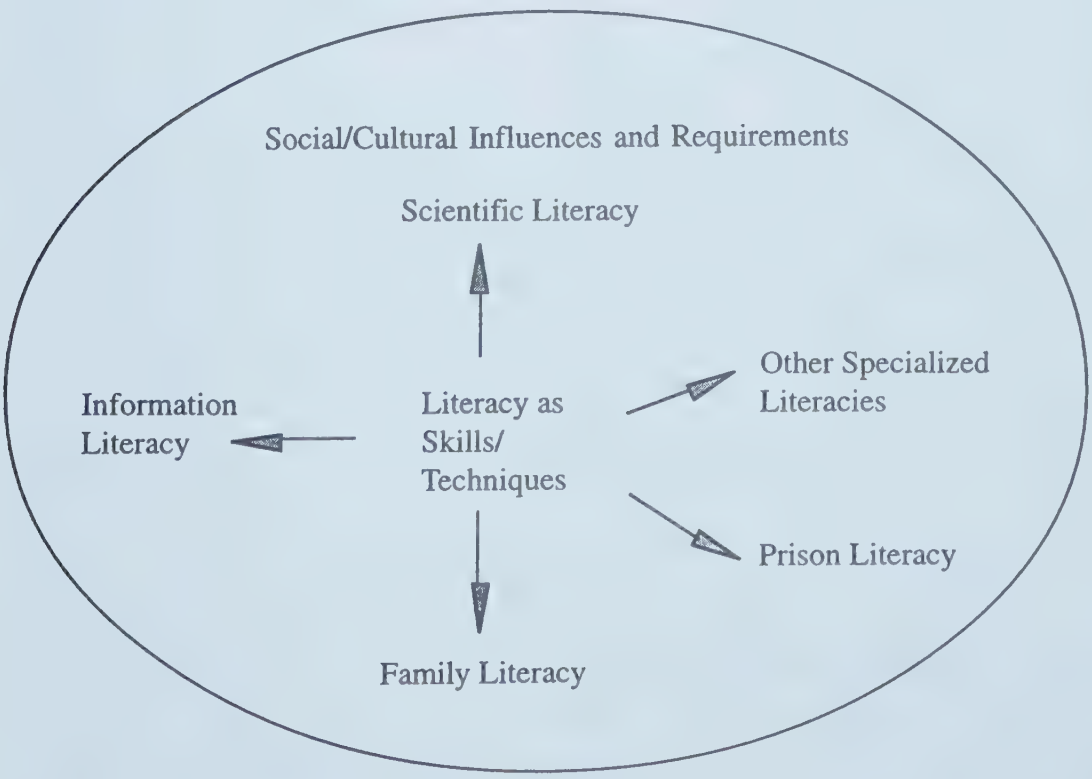


Figure 2. A reexamination of the influences on literacy education.

person or group deemed undesirable and to consolidate their own positions and power. Literacy is particularly vulnerable to this injustice because it is so easy to set membership requirements based on literacy and linguistic achievements. (As Henry Higgins said, "The moment an Englishman talks he makes some other Englishman despise him"—a clear indication of exclusionary boundaries at work (Shaw, *Pygmalion*). Why do most prisoners in Canada score well below national averages on literacy tests—or why are those with lower literacy scores more likely to end up in prison?) Questioning the political forces and motives behind educational choices must be a deliberate act of educators. For example, whose interests are served when scientific literacy corresponds to the development of skilled but uncritical science and technology workers of tomorrow? Probably not the workers. It matters who gets to be the gatekeeper, who has coercive influence, and who has greater skills with which to devour those with lesser skills. (For a dramatic example of this last point see *Toxic Literacies*, Taylor, 1996.) Greater skills unaccompanied by a social conscience simply make for more skillful abuse of others.

Literacy definitions and the purposes for literacy education implicit in them are socially constructed. Mechanisms in society also dictate who has access to literacy education and in what degree. Our consideration of how literacy is taught and learned or not learned by particular individuals or groups led quickly to consideration of the political factors involved. Teachers readily saw how their work is politically influenced or even determined; we also considered how teaching is necessarily a political act and therefore how teachers are not only acted on, but are actors, politically speaking. This led gradually to questions of how a political system is shaped by the society in which it operates, which led to the role of culture in influencing what a particular society values, which led to the major question of what constitutes moral/ethical action. In other words, we have worked through an examination of what *is*, toward questions of what *might* and *ought* to be.

Unpacking the concept of literacy highlights for us our social and professional responsibilities as educators—what is the basis for responsible action, and what are the ethical obligations of professional teachers and educators? Is it good enough to recognize and perhaps lament that many Canadians have marginal literacy skills, that many in the developing world are oppressed in part because of their inability to read the documents they are required to sign or to write on their own behalf, that many are unable to access and evaluate appropriate information to make informed decisions about such matters as health care? Or does knowledge of these injustices and adversities require educators, themselves beneficiaries of literacy, to take socially responsive action?

Teachers have frequently considered it their task to speak in a voice that is heard only inside the classroom. But is that sufficient? Those of us who have made a career in education, especially in literacy-related work, ought not to be keeping our heads down quietly within the walls of educational institutions, but rather to be adding our voices to the current debates about literacy—in which society well beyond educational circles is now so interested and at times so misinformed. We can, if we have the will to do so, make a start by offering alternate considerations of literacy, pointing out whose interests are repre-

sented and who is rendered voiceless, and teaching with more deliberate awareness of the ramifications of our work.

Such activities are political and may not be popular. But they are a service that educators, who have benefited personally from publicly supported education, can contribute to others and to society. What is presented here is only a beginning, a raising of some questions and concerns. The needed work for greater justice can take many forms, according to the abilities and opportunities of the individual educator. Each of us, every educator who considers literacy a matter of consequence, will have to decide by what voice, way, or means we can contribute.

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Community Service Providers as Literacy Facilitators: A Pilot Project

A pilot project was conducted with 20 community service providers that included health, social, and other professional workers from an inner-city area in one of Canada's capital cities. The goals of the project were (a) to explore a range of community service providers' perspectives on literacy; (b) to determine if six hours of training in family literacy development strategies modified community service providers' understanding of literacy learning; and (c) to examine how community service providers, as a result of the training, incorporated literacy events for the families they serve in their professional practice. Participants were involved in two three-hour workshops directed to literacy acquisition in general and family literacy practices in particular. Data were collected through pre- and post-survey questionnaires, individual interviews, and information collected during the workshops. Results indicate that participants demonstrated a shift in attitudes from skills achievement to sociocultural perspectives on literacy acquisition. The community service providers also attended to and included literacy events more frequently in their own professional practices after workshop participation.

On a dirigé un projet pilote avec 20 agent(e)s de services communautaires tel(le)s que des professionnel(le)s dans les domaines de la santé, des services sociaux, et autres d'un quartier défavorisée d'une des villes capitales canadiennes. Les objectifs du projet consistaient: (a) à éxplorer la gamme des perspectives de l'alphabétisation des agent(e)s de services communautaires; (b) à déterminer si six heures d'entraînement en stratégies de développement familiale de l'alphabétisation modifiaient les habiletés des agent(e)s de services communautaires à mieux comprendre le processus de l'alphabétisation; et (c) à examiner comment les agent(e)s de service communautaire, suite à leur entraînement incorporaient dans leurs pratiques professionnelles des activités propices à favoriser l'alphabétisation dans les familles desservies. Ceux et celles qui participaient dans les deux séminaires de trois heures chacun visaient l'acquisition de concepts généraux de l'alphabétisation et de la mise en pratique de l'alphabétisation en situation familiale en particulier. La collecte des données s'est faite à partir des réponses obtenues aux questionnaires distribués avant et après les séminaires, des entrevues individuelles, et aussi de l'information collectionnée pendant les séminaires-mêmes. Les

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résultats indiquent que chez les participant(e)s il s'effectuait un changement d'attitude par rapport à l'alphabétisation, c'est-à-dire, d'une perspective valorisant d'abord l'acquisition d'habiletés vers une perspective de l'alphabétisation valorisant de plus en plus ses dimensions socioculturelles. Aussi, suite à leur participation dans les séminaires, les agent(e)s de services communautaires portaient plus leur attention aux événements pertinents à l'alphabétisation et incorporaient davantage des activités favorables à l'alphabetisation dans leur pratiques professionelles.

Introduction

This article describes a pilot project conducted with 20 community service providers that included health, social, and other professional workers from an inner-city area in one of Canada's capital cities. The goals of the project were (a) to explore a range of community service providers' perspectives on literacy; (b) to determine if six hours of training in family literacy development strategies modified community service providers' understanding of literacy acquisition; and (c) to examine how community service providers, as a result of the training, incorporated literacy events for the families they serve in their professional practice.

The African adage that it takes a whole village to educate a child is particularly meaningful in light of current literature that views literacy development as a community responsibility rather than solely the responsibility of the school (Heath, 1982; Purcell-Gates, Allier, & Smith, 1995; Taylor, 1983). Many researchers maintain that children grow into a culture of literacy and develop attitudes about and abilities for literacy long before they come to school. The role the family plays in bringing children to an awareness and eventual practice of literacy is critical to their literacy development. Some families, however, because of a variety of social, economic, educational, or cultural reasons are unaware of how early literacy development occurs and may not provide their preschool children with literacy episodes that foster literacy development.

The family as an institution does not stand alone in the community. It is closely intertwined with other organizations; for example, health and social agencies provide support services to families when they offer well-baby clinics, recreational mother and toddler programs, second-language classes for immigrants, and financial planning sessions, to mention only a few. In many instances, community health, social, and other service providers have access to family environments for years before children's school entry. Professional community workers who are aware of how literacy is learned and who can suggest appropriate home language and literacy strategies are in an ideal position to influence positively family literacy behaviors. As community service providers interact in particular with young parents who are educationally disadvantaged, socially isolated, and/or who have low literacy levels, they may provide ongoing language and literacy development check-ups in conjunction with their routine social, health, or other professional practices. Furthermore, by including the voices of community service providers in supporting literacy development in the home, the importance of literacy learning as a family event and the significance of including even very young children in these events are underscored. A report by the National Anti-Poverty Organization (NAPO, 1992) titled *Literacy and poverty: A view from the inside* suggests that greater collaboration between literacy programs and other service organizations in the

community results in a more cohesive approach to literacy learning. Such an approach crosses generational boundaries and highlights for parents the centrality of their role as positive and supportive models for their children's literacy learning.

One may suggest that although professional community workers are highly trained in their fields of practice, they may not have a clear understanding of current perspectives on how literacy is acquired. It is possible that such workers may hold views about literacy that reflect those presented in the popular press, which maintain that literacy is simply the achievement of a selection of reading and writing skills that can be used in any context, that literacy is decontextualized from cultural practices, that less literate parents do not have the ability to support literacy practices in the home, and that literacy learning only begins and results from formal school instruction.

Although the research presented in this article sought to enhance the role of community service providers as agents for literacy development, the nature of their understanding of literacy learning and how literacy might be incorporated into their professional practice were the prime focuses for investigation. In short, this study was an attempt to sensitize community service providers to literacy issues as they relate in particular to their less literate clients' lives. It should be noted that this research project was exploratory in nature as little in the literature addresses the topic of community workers as literacy agents for the families they serve.

Related Literature

The notion that language and literacy are social processes that cannot be separated from the social development of young children is currently accepted in the literature (Ferreiro & Teberosky, 1982; Heath 1982; Hiebert, 1986). Inherent in this view is the belief that the family is an educative community in which shared learning experiences occur. There has been increasing interest among educators in the connection between families and literacy (Gadsen, 1995) as a result of evidence indicating that early childhood and school programs may be more successful when family members are involved. As noted by several researchers (Delgado-Gaitan, 1987; Handel & Goldsmith, 1994; Nickse, 1990), an important issue in family literacy programs is that they tend to teach parents and children literacy strategies that are characteristic of mainstream families, such as book reading and appropriate verbal reactions with children. However, as indicated by Auerbach (1989), special sensitivity is needed to take into consideration the cultural roots of the populations served by family literacy programs. Auerbach contends that language minority families and those with less proficient literacy skills value literacy and that many family practices that do not include overt print events can act as support for and avenues to literacy development. Fagan (1996) concurs when he notes that family routines such as mealtime discussions about daily events or parental consistency related to bedtime behaviors provide children with appropriate learning that will help them in school. In short, several investigators (Snow, Barnes, Chandler, Goodman, & Hemphill, 1991; Strickland & Morrow, 1989) discard the deficiency model for literacy acquisition for families that are socially and educationally disadvantaged.

A search of the literature did not find many studies that investigated broader interpretations for community-literacy collaborations. Most of the citations provide descriptions of programs designed to increase either adult literacy abilities or ways to involve families in mainstream literacy events so that the children may be better prepared to learn in school (St. Pierre, Swartz, Deck, & Nickel, 1993). For example, the few studies that addressed literacy *and* health focused primarily on the development of health print materials for less literate adults (Doak, Doak, & Root, 1996). Even today considerable attention and money are paid to the preparation of such materials. The premise appears to be that if the print is written in a simple format, people with literacy difficulties will be more able to understand the messages it contains. Although no doubt such a premise is valid, it is possible that such practices maintain and support perspectives of deficiency with respect to less literate people.

Proponents of the sociocultural perspective, on the other hand, contend that literacy is not a have-have not phenomenon. They maintain that literacy proficiency evolves as people attempt to use print in the context of their lives, at home, at work, and in the community. Researchers such as Street (1992) suggest that those who hold an "autonomous" view of literacy support a technical skills perspective, in which these technical skills can be applied across contexts and cultures without attention to specific situational demands. Street prefers an alternative view, which he terms an "ideological" model for literacy. This model recognizes literacy as practices that respect the political, social and cultural environments in which those practices occur. His perspective is supported by Fingeret and Drennon (1997), Stein (1995), and Taylor (1983). Although the efforts to develop plain language texts may encourage meaningful print interactions in the family context, such texts alone will not be sufficient to support parent-child literacy relationships that evolve as family members use literacy to meet their own social and cultural needs.

The research is rich with documentation on how children acquire literacy. However, if community workers' perspectives on literacy acquisition are similar to those presented in the popular press, one may suggest that they will be more inclined to ignore the issue of child literacy development, considering it primarily the responsibility and concern of the school. For example, if community workers know why reading to children provides a solid base for formal literacy instruction, one may assume that they will be more likely to encourage such reading in the less literate families they serve.

Method

The Sample

A community health agency in a major Canadian city was approached to determine its interest in having some of its workers participate in a series of workshops directed toward literacy. The response from agency personnel was positive, although there was some initial reluctance to be involved in a research endeavor. This reluctance related to questions about the fruitfulness of investigating those who are literate in a study that explored ways of assisting their less literate clients. In addition, this agency could not release more than two staff members for the designated time (six hours), so the administrator suggested that other health and community agencies be approached to determine

interest in participation in the study. After a series of eight meetings with several community agency administrators, 14 agencies elected to send one or two of their staff to participate in the workshops. The names of the individual participants were forwarded to one of the researchers, who subsequently contacted them all by telephone to talk about their professional practices and to determine what might be included in the workshops to meet their needs adequately.

Twenty community workers participated in the study: five public health nurses, four social workers, five outreach workers (individuals who provide assistance in the homes of at-risk families), one dental assistant, two health agency administrators, one community counselor, and two community second-language facilitators. After having been advised of the purpose and nature of the study and having been assured that confidentiality, anonymity, and other ethical aspects were being adhered to, all individuals agreed to participate. All participants were women. Both researchers co-facilitated the workshops.

Pre- and Post-Survey

Participants completed a Propositions About Literacy Survey (PALS) before the workshops began and again at their conclusion. Broadly based on the work of Deford (1979), the survey asked respondents to rate on a four-item Likert scale their agreement or disagreement with 30 statements about literacy. The PALS statements were composed from a range of literacy topics addressed over a one-year period in local newspapers and magazines. Seven statements focused on the role of parents in their children's literacy learning, 10 addressed emergent literacy, six attended to the processes of literacy learning, and seven centered on the sociocultural nature of literacy learning. In the data analysis procedures, *strongly agree* and *agree* sections were collapsed into one item; a similar format was used for *strongly disagree* and *disagree* selections. Percentage totals were then identified for each item for both pre- and postsurvey results. Pre-/postsurveys were completed by 18 of the 20 participants.

The Workshops

The workshops were an integral part of the research process and allowed for immediate use of the information generated in them for those who participated. In other words, the workshops were used as a participatory research technique.

The goals of the workshops were: (a) to provide participants with strategies to help them recognize and support the development of early literacy behaviors in the families they serve; (b) to identify contexts where community service providers may positively influence the literacy learning behaviors of their adult and child clients; and (c) to determine if literacy awareness workshops extend community service providers' understanding of literacy learning and use.

The workshops were designed to provide community workers with those perspectives on literacy currently held in the literature noted above. If community professionals were sensitized to recognize the positive (literacy) events presently occurring in families, as opposed to viewing these families as literacy deficient, the workers might indicate to parents the appropriateness of these

events for children, as well as suggest other more intentional literacy practices in families. Furthermore, the underlying premise of the workshops addressed the necessity of literacy acquisition as both socially and culturally meaningful to families rather than being simply the attainment of school literacy practices.

Although three two-hour workshops were originally planned to occur on three separate days across the months of September, October, and December, the collaborating agencies suggested that two three-hour workshops would be more appropriate because of the difficulty of releasing staff. One of the agencies elected to host both workshops.

The first three-hour workshop addressed the topic of literacy in general terms. Topics included Canadian literacy statistics, literacy use in daily life, the identification of the literacy needs of clients, strategies to incorporate literacy into professional practice, and strategies to support the literacy needs of less literate clients. In addition, workshop attenders participated in a shared-book reading session modeled on the BOOKS (Hayden & Wahl, 1996) program. This program uses children's literature as a launch pad for discussion of issues that surface from the text in light of the reader's personal experiences. The program also uses the print in the text as a medium for enhancing adults' reading ability. At the conclusion of the first workshop, six children's books were given to each participant with the request that each identify on a written form how she used the books in her own professional practice. Participants were also asked to identify how they supported the literacy efforts of their clients during the three-week period between the first and second workshops.

The second workshop addressed concepts surrounding emergent literacy. Topics included concepts about print, learning to read, family literacy practices, and fostering community awareness for literacy. Feedback about how respondents had used literacy in their practice over the three-week period was sought and incorporated into the discussions surrounding family literacy. This workshop concluded with the distribution of five more children's books to participants. A package of professional materials that addressed adult and child literacy was distributed for future reference.

Although the researchers originally intended to donate a selection of books to families and explore how these books were being used in the families, for legal reasons the researchers could not be given the names of families with whom the participants worked. Therefore, the books were given instead to the workshop participants to use in their practice. Each participant received 11 children's books.

Interviews

Three months after the last workshop, one of the researchers contacted as many participants as possible for a telephone interview. It had been intended to have more personal contact, but the workload of the participating professionals, and the difficulty of finding mutually agreeable times to meet, made face-to-face interviews impossible. Sixteen of the workshop participants were interviewed. Two had moved away and two could not be contacted in spite of several attempts to do so. Each interview lasted approximately 30 minutes. Three questions directed the dialogue: (a) What literacy practices are you now including in your professional work that you were not doing prior to the workshops?

(b) What do you see as outcomes from these practices? and (c) What difficulties are you experiencing incorporating literacy into your professional practice? If a participant responded negatively to the first question, the second question was not asked, but this happened only once.

Results and Discussion

Survey Results

Results indicate a shift in workshop participants' understanding of literacy. As noted in Table 1, participants' attitudes about literacy acquisition and development moved from a more traditional understanding of literacy to one that includes more holistic sociocultural perspectives.

For those survey items that addressed the role of parents in literacy learning (2, 4, 8, 13, 21, 25, and 28), participants indicated that they revised their original views of less literate parents as deficient and therefore inappropriate literacy models for their children. The change in perspective for item 21 (parents need to be good readers themselves so that they can model reading for their children) is particularly interesting. Over 50% of participants originally agreed with this statement. On conclusion of the workshops, only 11% held to this perspective. These results suggest that if community service providers maintain this new perspective as they interact with their less literate clients, the professionals will be more likely to suggest that less literate parents talk about the pictures in a book with their children and select simple books that they can read rather than ignoring the issue of literacy.

Participants also demonstrated a new understanding of emergent literacy (items 1, 10, 16, 17, 18, 19, 22, 24, 26, and 27) although it should be noted that the strength of change was not as dramatic as in other sections of the survey. It appears that appropriate understandings of how young children learn to read were held by several participants prior to workshop input. However, greater acceptance generally for current perspectives on learning to read evolved. It should be noted that most of the participants were themselves parents. One may suggest that their initial responses to those items on the survey represented their practice and understanding as parents rather than as community professionals. Such a suggestion seems reasonable given their initial responses to the role of parents in literacy development, as noted above. In other words, what they viewed as appropriate emergent behaviors was a reflection of their own practice with their own children, practice that they may not have seen as possible literacy behaviors for less literate families. On the other hand, if the respondents' perspectives on emergent literacy are maintained as they interact with less literate families, and if they attempt to act on their new understandings for the role of less literate parents in their children's literacy development, the community workers may well have a positive influence on the literacy development of the families they serve.

The six items that focused on the processes for literacy learning (3, 6, 7, 9, 11, and 12) demonstrated that respondents' understanding of literacy acquisition moved from a traditional approach to one that is more culturally aware and less focused on the discrete aspects of print. The level of movement in most cases was quite strong, with a range of 16% to 50% in change for perspective. For example, on the pretest only half of the participants considered reading to

Table 1
Propositions About Literacy Survey: Percentage Totals

Items	Pretest		Posttest	
	SA/A	SD/D	SA/A	SD/D
1. Children are ready to learn to read and write when they are five or six years old.	83	17	28	72
2. Parents with low literacy abilities do not have the skills necessary to encourage reading in the home.	44	56	6	94
3. Reading is essentially a skill of decoding print.	61	39	44	56
4. The children of less literate parents have difficulty learning to read in school.	83	17	50	50
5. Years of schooling is a clear measure of literacy ability/achievement.	17	83	6	94
6. Children should know the letters of the alphabet and their corresponding sounds before they begin to read.	50	50	17	83
7. It is a good strategy to correct children as soon as they make an oral reading error.	44	56	6	94
8. Less literate adults are generally slow learners.	11	89	6	94
9. Encouraging children to sound out words is one of the best approaches to helping them learn to read.	78	22	44	56
10. Reading to children provides a solid literacy base for formal reading instruction.	50	50	100	0
11. Learning to read or write is systematic and sequential.	83	17	67	33
12. Formal instruction in penmanship is necessary so children can become good writers.	61	39	28	72
13. Single parents are less likely to read to their children than their married peers.	39	61	28	72
14. Illiteracy is a cause of social disfunction.	72	28	28	72
15. A lack of books in the home is a good indicator of a lack of interest in becoming literate.	50	50	28	72
16. Children's early encounters with print should focus on correct word recognition rather than meaning.	72	28	6	94
17. Materials for young children should be written with short simple words and sentences.	50	50	11	89
18. A child's literacy development begins very early in life—possibly at birth.	72	28	100	0
19. Beginning reading and writing practices exhibited by young children result from direct instruction.	44	56	11	89
20. Learning to read is a social process influenced by children's search for meaning.	22	78	94	6
21. Parents need to be good readers themselves so they can model reading for their children.	56	44	11	89
22. Rereading favourite stories to children will retard their reading development.	28	72	0	100
23. Learning literacy is a culture-and-value-free activity.	61	39	39	61
24. Environmental print (e.g., road and business signs, labels on products is a good source of text for young children to read.	39	61	94	6
25. Less literate parents are not sufficiently knowledgeable to support the literacy development of their children.	28	72	6	94
26. Children should be encouraged to be quiet and non-interruptive when being read to.	17	83	6	94

Table 1 (continued)

Items	*Pretest*		*Posttest*	
	SA/A	*SD/D*	*SA/A*	*SD/D*
27. Reading to a child is a good way to assess his/her reading development	77	23	94	6
28. Less literate parents need to upgrade their own literacy skills before they can assist their preschoolers develop an understanding of print.	56	44	22	78
29. Poverty is a cause of low literacy.	39	61	78	22
30. The low literacy levels of a significant number of the population is a cause of society's economic difficulties.	83	17	50	50

SA = strongly agree; A = agree; D = disagree; SD = strongly disagree.

children provided them with a base for formal literacy instruction (item 10). However, in the posttest survey, 100% agreed with this statement. As the workshops included considerable emphasis on how reading to children builds their concepts for print, it seems that the participants may more readily encourage parents to read to their children not only because it may be a pleasurable activity, but also because they want to inform these parents that such an activity provides the basis for future formal school literacy instruction.

Those items that addressed literacy as a sociocultural phenomenon (5, 14, 15, 20, 23, 29, and 30) were most representative of a change in participants' perspectives. Items 14 and 30 are of particular interest. Pre-workshop responses indicated that the participants generally held perspectives that mirror what is often reported in the popular press; that is, less literate adults are blamed for society's ills. The clients with whom these professionals interact are often unemployed and on social assistance. Many are unemployable because of a variety of social, emotional, or physical reasons. Only slightly more than a third of the respondents initially indicated that poverty was a cause for illiteracy (item 30). After the workshops, more than three quarters of the participants held this view. Similarly, initial responses to item 14 indicate that 72% of participants considered illiteracy as a cause of society's social ills. Only 28% held this perspective in the post-survey.

The apparent swift change in participants' responses from viewing literacy from traditional perspectives to those that view literacy in more comprehensive ways is surprising. Changes in belief systems generally occur rather slowly. One may ask what it was about the workshops that allowed this conceptual shift to take place so rapidly. The activities presented in the workshops placed the participants in literacy situations with which they were not familiar. For example, one activity demanded that they draw rather than write all the literacy events they were involved in both at work and at home during the previous 24 hours (Norton, 1988). The difficulties and frustrations many participants experienced doing this task, as well as their reluctance to show the results of their work to neighbors, were used as the basis for discussion about the literacy behaviors of their less literate clients. Another activity required participants to debate the merits of statements such as "Print is overused in our society as a medium of communication" or "The less literate population is

responsible for most of the crime in our city." Such debates were quite heated as participants took different sides in the discussion and attempted to sway others to accept their points of view. The overall input from the facilitators throughout the workshops, in addition to the participants' experiences with and their discussions of literacy during the sessions, allowed them to come to a new understanding of what it means to be literate and of the role society plays in that development.

Furthermore, participants had the opportunity to reflect on their own practice—how literacy is involved with it—and to discuss this issue with peers. In the workshops, they had occasions to identify how, when, and why they require literacy tasks of their clients, and to explore other means of communication rather than print for providing information. They were provided with the tools to investigate ways and means of collaborating with clients in attending to and completing document literacy tasks. They examined how they could recognize and support the existing positive family behaviors in order to assist in literacy development in the families they serve. They had opportunities to develop their own concrete examples and practical solutions to the literacy issues they face and the literacy issues about which they were previously unaware. In other words, because the workshops were predicated on a participatory model rather than the transmission of literacy knowledge, the facilitators encouraged and modeled what they wished the practitioners to do with their families. Because the community service providers were involved in developing their new awareness for literacy, the change in their perspectives on literacy, and the rate of that change, is not surprising.

Interviews

As noted above, time was provided during the workshops for participants to identify how they might include literacy activities as part of their professional practice. In other words, they were aware of specific ways that they could incorporate literacy events into their professional practice before doing so.

Two women noted that they were not able to put into practice what they had wanted to do. One had changed jobs and was trying to "get a handle" on it before she "got anything going." The other had been ill for about six weeks immediately following the workshops. She was glad that she had been contacted as it reminded her that she had intended to set up a little desk with writing materials in her office for visiting children. For most of the respondents, however, there was overwhelming enthusiasm for discussing the literacy events occurring in their practice.

There appeared to be few differences among the groups of professionals with respect to incorporating literacy into their practices. They included the donated books in their repertoire of professional items and/or left them for client use in waiting rooms. Some even took the time to read a book or a part of one to their child clients during a visit. A few participants organized small lending libraries in their clinics or offices; others set up writing centers where youngsters could draw or write while their parents were being attended to. Two participants were trying to establish a routine of having reading volunteers act as model readers for parents during clinic hours. In short, each of the

14 had found some way to highlight literacy activities in their professional routines. One respondent noted, for example,

> There is one home I go to where there's a new baby and a three-year-old. He's a going concern and jealous of the baby. So I give him one of the books to look at while I take care of the mom and the baby. When I have finished with them and if there's time, I read the book to him. If I am rushed, I ask him which page he likes best and we talk for a minute about it.

When asked if she would have acted similarly prior to the workshops, she replied "I never had. I knew it was important to read to kids but I never thought that had anything to do with my work—only for my own kids."

Another respondent was enthusiastic in her discussion about putting the books in her clinic waiting room.

> I never thought that having books in my clinic would have such an effect. I've even had a couple of mothers remark that it is great to have something to read to their children while they wait. Even those whom I know don't read well look at them with their children.

Another participant commented that as a result of her taking a minute or two to share a book with her child clients, she is now referred to as "the reading nurse."

Other respondents indicated that they had set up a little table in their offices so that visiting children could write or draw when the practitioner was talking to other siblings or their parents. One participant was successful in encouraging her colleagues to set up a lending library of books for interested parents. "Our library is nothing much—about 50 books, but as we see people often on a daily basis, they bring their books back—mostly. We've lost a few, but what the heck, it's worth it."

Many of the participants felt constrained by the lack of human and material resources to put into practice what they now thought to be important. It should be noted that many of those who attended the workshops indicated they were required to share the information they learned with peers in their organizations. However, several noted that the enthusiasm they felt for the topic of literacy got "lost in the translation" to others.

Perhaps more important, interview data highlighted that the majority of the practitioners were more aware of their own behaviors with respect to literacy. Previously, as some respondents noted, they would hand forms to adult clients with a short explanation of how they might complete them. As a result of the workshops, when they felt that their clients were experiencing difficulty with literacy, they spent more time explaining what the forms demanded, or in some instances offered to fill them in for the clients. In addition, the respondents indicated that they made this offer with greater sensitivity than previously. "I'm much more likely to talk through a form now than just ask someone to fill it in. Sure, it takes more time, but in the long run, we get it done right and perhaps even faster," noted one respondent. Several participants indicated that they were more conscious of how print is presented in their offices or clinics. One woman put the comments of her peers succinctly when she stated,

> We used to print everything in capital letters for notices on the bulletin board etc. Now I know that just makes it harder for people to read. So now, we are more careful about how we post things. We are starting to use colored paper too so that when we phone clients, we can say, "that information is on the yellow sheet we gave you." I think this all helps.

Not all the respondents viewed having a literacy component in their professional practice as a positive move. One woman in particular was of the opinion that it just meant more work for her.

> I have so many clients that I see every day and so many of them are in stressful situations that I really am the only person between them and despair. This is hard enough for me to handle without having to think of literacy. With all the cutbacks and all the extra work we have to do, I don't think we should be asked to involve ourselves in our clients or their children's literacy learning. We are not experts in this field, like you are not in mine. Sometimes, I think I would do more damage than good pushing literacy on them.

However, such comments were rare; generally those who were cautious about the role of literacy in their practice felt they needed greater support from colleagues who understandably were less enthusiastic than those who had attended the workshops.

Reflection

The results from this study demonstrate the power of literacy inservice for community service professionals. Their shift in understanding of literacy and their genuine efforts to incorporate literacy into their practice are encouraging. Whether such perspectives and practices will be maintained over time is difficult to predict. As a result of projects such as Alberta's Action for Health, literacy development is becoming more recognized as a component of healthy communities, highlighting the greater awareness that literacy acquisition is not confined to the schools. There appears to be a growing awareness that the responsibility for moving both children and less literate adults toward more comprehensive literacy abilities rests with the full community.

There may be some argument that encouraging community service providers to bring marginalized families to accept mainstream literacy practices affirms a deficiency model for literacy acquisition. Such an approach may even be viewed as paternalistic. By focusing on practices such as reading to children or involving them in print production practices like list writing, marginalized adults may infer that their current family practices are deficient. On the other hand, it appears that schools are reluctant to change their expectations for children. Therefore, youngsters who live in less literate homes are at a disadvantage as they enter school, where they are expected to have acquired certain skills that middle-class children have already acquired. Delphit (1992) maintains that less fortunate families are advantaged when they are shown how to succeed in mainstream society. The literacy activities suggested and/or modeled by community service providers is a move in that direction while supporting and extending those literacy practices that currently occur in families.

Children from poor families may need more extensive exposure to literacy activities for them to achieve success. The community service providers in this

study are probably more aware of the negative influences of poverty than others in society. If they are sensitive to the role literacy might play in the lives of their children and adult clients, and if they address literacy in a supportive, considerate, and appreciative manner, they may be advocates for the positive parental routines that these families currently practice as a launch pad for the more exacting academic demands that the school requires. Furthermore, when community service providers are aware of and highlight the use of literacy in their own practice in socially significant ways, they will do more than just suggest add-on literacy tasks to families whose lives are already overburdened. They will demonstrate that literacy is more than successful achievement in school literacy tasks. They will support a perspective that the family and community social contexts are central forces for learning that go well beyond mainstream school literacy practices.

Conclusion

Community service providers who are knowledgeable about how literacy is acquired, who are aware that less literate families may provide an environment conducive to literacy learning outside the practice of literacy itself, and who model the role of literacy in their own professional practices, may open possibilities for their client families that enhance rather than threaten the cultural portraits in those families. The suggestions provided by community service providers for the inclusion of more overt literacy practices in families may establish a range of activities that are safe and enjoyable places for adults and children to explore new ideas together and co-construct new knowledge in their own cultural milieu.

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Mentor-Supported Literacy Development in Elementary Schools

This article reports on a study of volunteer mentorship programs intended to support literacy development in early elementary grades. To provide a context for the study and its questions, it reviews issues related to the importance of early literacy development, various forms of early intervention, mentorship programs, and evaluation issues for both literacy programs and mentorship programs. In this first phase of the research program, the researchers sought to learn children's, mentors', and teachers' perspectives on the quality of the relationships established and the academic benefits of the program. The results indicated that such programs are a promising direction for further development and research work.

Dans cette article, on fait le reportage d'une étude des programmes de mentorat qui visent à appuyer le développement de l'alphabétisation chez les élèves au début du niveau scolaire élémentaire. Afin de pouvoir situer cette étude et ces questions, on fait la révision des points saillants du développement de l'alphabétisation hâtif, des diverses formes d'intervention hâtives, des programmes de mentorat et des questions concernant l'évaluation des programmes d'alphabétisation et de mentorat. Dans de premier volet du programme de recherche, les chercheuses voulaient connaître le point de vue des élèves, des mentors, des enseignants et des enseignantes vis-à-vis la qualité des relations établies et des bénéfices académiques du programme. Les résultats indiquent que de tels programmes de mentorat seraient prometteurs pour de plus amples travaux de développement et de recherches.

Unlike traditional teaching where everyone is supposed to learn the same curriculum, often at the same pace—despite personal interests, abilities, or conflicts—mentoring asks that these very interests and conflicts be the heart of the relationship between the adult and the youth. Thus personalized care and attention to individual needs lie at the core of mentoring (Flaxman & Ascher, 1992).

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All children need supportive interaction with caring adults to learn and grow. Increasing numbers of children are at risk of not having as much as they need for the mental and moral development that will enable success at school (Brandt, 1993). Brendtro and Long (1995) and others have observed that children who are securely attached to adults learn trust, competence, self-management, and prosocial behavior. In the past educators have generally waited for some children to fail at school and then offered remediation. Slavin, Karweit, and Wasik (1993) have likened this approach to a community with contaminated drinking water choosing to spend funds only on treatment of sick people rather than on a water treatment plant.

With the view that prevention is preferable to intervention, we have collaborated with two schools to develop and research volunteer mentorship programs to support the literacy development of children in kindergarten, grade 1, and grade 2. The programs entailed having adult mentors spend an hour a week with a child to visit, read together, and carry out literature response activities or other language development and reading support activities. After mentorship sessions had proceeded for six to eight weeks, the researchers interviewed children, mentors, and teachers to learn about the quality of the relationships and the value of the academic support. Because mentors were not trained teachers and did not have a specific curriculum to follow, there were real questions about how beneficial the reading support activities would be. Because nonrelated adults spent only an hour a week with young children, it was also questionable whether the relationships would have enough intensity to qualify as mentoring rather than as more limited tutoring relationships. This article presents an overview of issues and questions related to early literacy development and to mentorship programs, describes our development work, and discusses findings from the first phase of our research.

Issues Related to Early Literacy Development Initiatives

The Problem

In a review of the topic of preventing school failure, Slavin (1994) noted the importance of children learning to read in the early grades. Longitudinal studies have shown that disadvantaged grade 3 children who have failed one or more grade levels and are reading below grade level are extremely unlikely to complete high school (Kelly, Veldman, & McGuire, 1964; Lloyd, 1978). At the same time, remedial programs beyond grade 3 have few if any effects (Kennedy, Birman, & Demaline, 1986).

In his review of preventing school failure, Slavin underscored the critical role of children's grade 1 experience.

> Almost all children, regardless of social class or other factors, enter first grade full of enthusiasm, motivation and self-confidence, fully expecting to succeed in school.... By the end of first grade, many of these students have already discovered that their initial high expectations are not coming true, and they have begun to see school as punishing and demeaning. Trying to remediate reading failure later on is very difficult because students who have failed are likely to be unmotivated, with poor self-concepts as learners. They are anxious about reading and they hate it. (p. 11)

Although these are strong words about how children can experience grade 1, our previous video program research with junior high students' memories of elementary grades (*Listen Up!* 1997) confirms that children in grades 1 and 2 are highly sensitive to both explicit and implicit information about their performance in school.

Forms of Early Intervention

Concerns about supporting children's early growth and experience are not new, and many different kinds of initiatives have been employed: birth to age 3 interventions, preschool, and kindergarten models with varying day length, retention, developmental kindergarten, transitional grade 1, smaller class size, instructional aides, nongraded primary classes, one-to-one tutoring, Success for All, and improving curriculum and instruction. In reviewing evaluations of these strategies, Slavin et al. (1992-1993) noted that approaches that incorporate one-to-one tutoring of at-risk grade 1 children are most effective for preventing early reading failure. Further, these reading outcomes are largest and longest lasting when the tutoring is done by teachers using well-developed curriculum and instruction such as Reading Recovery. The lasting effects of Success for All were the largest, but this is a multistrategy program that continues through the elementary grades.

Barr and Parrett (1995) also concluded that the best way to meet the needs of at-risk youth at the elementary level is through schoolwide programs that integrate the various approaches into a comprehensive effort. They also acknowledge, however, that with the demands placed on schools by increasing numbers of at-risk children, schools must begin implementing practices that are known to work. A common feature of prevention and intervention programs or strategies is the need for special funding. Although some schools serving large numbers of disadvantaged children may be targeted for special funding, other schools may have no special funds for services for at-risk students in their classrooms. Although one-to-one tutoring of low-achieving grade 1 children by a specially trained teacher may be the single most effective strategy, this can require hiring an additional teacher for each grade 1 class.

The Mentoring Movement

Flaxman and Ascher (1992) described mentoring as representing a shift in vision for antipoverty efforts. They noted that by the 1980s most compensatory education and youth employment programs were viewed as only marginally successful in forestalling academic failure or dropping out of school, or in making youth employable for anything but low-skill jobs. They criticize previous intervention programs for having focused solely on imparting skills or manipulating the youths' motivations, attitudes, or behaviors, rather than working with the young people as "complex, physical, psychological and social beings in environments and institutions over which they had little control" (p. 2). Any caring and help that was provided to recipients in these programs was fortuitous and unplanned and not considered part of the programs' effects. Mentoring, by contrast, is conceptualized as a more holistic way to respond to the whole child or youth.

> In attempting to duplicate how people behave under natural conditions, its [mentoring's] goal has been to give them something closer to what they need. As

> an ideal, mentoring bypasses the scientism and technicism of many educational and social programs, which appear remote from lived experiences. In this, it has appeared to be a sensible and socially moral response to the difficulty of growing up in the United States today. (p. 2)

Smink (1990) has insisted that the mentor's most critical function is to provide moral support and a sense of caring. As social learning theory suggests, when younger people feel liked and cared about by their mentors, they will be more likely to identify with their mentors and to want to imitate their behaviors and attitudes. Similarly, Flaxman and Ascher (1992) emphasized the importance of mentors and mentees having joint activity, personal attraction, frequency of interaction, and familiarity in order for trust to develop and for the younger person to be inclined to look to the mentor as a helper or caretaker. The notion of moral support, as used by Smink (1990) above, however, is probably not reducible to things that can be counted and measured like frequency of interactions. MacIntyre (1981) explained moral action as action that preserves the continuity of the story one is living—the story of being someone's daughter, someone's friend, someone's teacher. Thus moral support from a mentor would manifest itself in interactions that preserve the continuity of the story of the mentor being one who cares for and supports the growth of the child.

Brodkin and Coleman (1996) have defined *mentor* as "one who provides one-to-one support and attention, is a friend and a role model, boosts a child's self-esteem, enhances a student's educational experience" (p. 21) and mentoring as "meeting regularly over an extended period of time with the goal of enabling a special bond of mutual commitment based on the development of respect, communication and personal growth" (p. 21). Flaxman and Ascher (1992) state that the heart of natural or spontaneous mentoring has always been to provide assistance during a period of transition such as that from childhood to adolescence or from novice to expert and that the goal of mentoring is to help the child or youth gain social learning and command over tasks of everyday life in school, work, or society. This occurs through jointly carried out activities in which the mentor alternately models, teaches, manages, questions, and structures a task for the child or youth.

Mentorship Programs

During the last several years a number of mentorship programs have been initiated in the US, and more recently in Canada, particularly in Ontario. The programs vary greatly in size, longevity, target population, and purposes. Described here are programs for elementary students that are based in schools.

Our Lady of the Lake University in Texas has been involved in a mentoring initiative with an inner-city elementary school. Staudt (1995) explains that "this very successful mentoring program involves the matching of college students and at-risk elementary students in order to improve the elementary students' attitudes, behavior and self-esteem" (p. 5). Mentors and mentees engage in a variety of activities "such as reading to their students, taking them to the university, playing games. Field trips are allowed after a trusting relationship is established between the mentor and the student" (p. 7). The mentors can help the students with academic school work, but "the mentoring program is not to be used as a tutorial program" (p. 7). Ongoing communication between teacher

and mentor provides both mentor and teacher with strategies to meet the needs of the students. Mentoring occurs primarily at the school, but not inside the classroom. The university is located one block from the school. Mentors sign in on arrival and wear badges for identification purposes. Written permission must be provided by parent or guardian before the mentoring process begins. According to Staudt, this program is making a significant difference to the lives of elementary students.

The CUNY/BOE Student Mentor Program is a college-based program that also serves elementary children. This program offers course work and academic credit for mentoring, which is a component of college courses in educational psychology, sociology of urban education, field work in child/adolescent development, and mentoring internships. Training occurs in classes on campus following a model that provides multiple levels of continuous support from peer groups, coordinators, and scheduled weekly mentor-mentee get-togethers. Academic credit serves as an incentive for mentoring (Flaxman & Ascher, 1992).

Excellent Beginnings is an early childhood mentoring initiative that resulted from an understanding that children, particularly African-American children, lack male role models (Walter, 1995). Teachers and members of the community wished to encourage at-risk students to stay in school and to increase the numbers of African-American male elementary teachers. High school students were sought as mentors for elementary students. Three of the 14 schools that applied for funding for this program were chosen to participate. Consideration was given primarily to early childhood proposal initiatives that could successfully integrate the school and community. The criteria for all proposals included curriculum and classroom management, parent involvement, high school mentors, higher education collaboration, training, guidance, and staffing. One hundred African-American preschool and kindergarten children, as well as students in alternative classes for older elementary students attending the Lincoln Center school in Ruston, Louisiana, participated in this program. Grade 3 children and younger students were targeted because "research indicates that is a pivotal point when African-American males become turned off school" (Walter, 1995, p. 2). Students came from single-parent families suffering low self-esteem due to economic hardship.

Although the largest and most widely recognized programs for at-risk students are in the US, Brown (1995) recently identified a number of Canadian mentorship programs in Ontario. Each program is unique in terms of purpose, context, and age of mentors. Prime Mentors, for example, is an in-school enrichment program for elementary high-risk, creative youth. Big Brothers is an out-of-school initiative that matches boys from single-parent families to men. Big Brothers, Big Sisters (1995) has recently developed an In-School Mentoring Program, which is a partnership between the BBBS and the Board of Education in Hamilton, Ontario. This is a highly structured program developed after the BBBS model. Community Mentoring is an initiative that involves community volunteers acting as mentors in North York schools. Three intergenerational programs include: the Seniors Independence Program, which involves matching adults with at-risk youth in Scarborough, Toronto, and North York; the Volunteer Grandparents Program, which links grandparents

to 2-6-year-olds; and the Toronto Intergenerational Project, a pilot project linking seniors with elementary students identified as at risk.

Programs vary greatly in terms of the relative emphasis given to providing a relationship or providing academic support. In the program at Our Lady of the Lake University described above, for example, there were clear warnings against the program becoming a tutorial one. Some mentoring programs, however, focus specifically on strengthening academic skills. HOSTS—Help One Student To Succeed, for example, is a national program in the US that helps students of all ages who are experiencing reading difficulty. Each student is matched with a trained mentor who provides "individual attention, motivation and support" (Smink, 1990, p. 12). Similarly, One PLUS One is an initiative with a goal of increasing literacy of at-risk children and youth (Flaxman & Ascher, 1992).

Some programs focus on a wide array of skills or are based on whatever the student needs. The goals in such programs are intended to respond to the needs of the people they serve. As an example, KIT—Keeping In Touch With Students is a well-established program that has been operating for at-risk junior high students since 1987. In this program teachers mentor students in their own schools, using weekly meetings to provide personal tutoring and counseling (Flaxman & Ascher, 1992).

Evaluation Issues

Considering how best to research or evaluate volunteer mentorship programs intended to support literacy development in early elementary school has not been straightforward. Typical measures of the effectiveness of one-to-one tutoring programs have been immediate reading outcomes and longitudinal measures regarding retention, placement in special education, or other measures of actual school success or failure (Slavin et al., 1993). In a review of five one-to-one tutoring programs, Wasik and Slavin (1993) identified difficulties with both the availability of standardized tests that were suited to the curriculum of the tutoring and the practice of dropping children from a program if they were not responding successfully. They pointed out that it can be increasingly difficult for students to demonstrate sustained gains with each passing year because the range of all students' scores on tests also increases. They drew attention to the need both for authentic performance assessments and for more ethnographic studies or microanalysis studies to reveal the cognitive and motivational processes activated in tutoring, that is, how it is that at-risk children learn to read in tutoring.

In evaluations of mentorship programs, outcomes of interest have been increased academic success and persistence. In a discussion of the evaluation of mentorship programs, Flaxman and Ascher (1992) suggested that the amount of time the mentor gives to mentoring largely determines how good the mentorship can be. Given the importance of the quality of the relationship in mentoring, they also emphasize that more qualitative studies are needed to clarify or verify the nature or intensity of mentorship relationships. As well, if academic support is intended to be an important component of the mentorship, the planning skills of the mentor warrant attention. Brown (1996) observed that mentorship program developers have generally lacked funds for substantial

evaluation studies. Accordingly, evaluations of in-school mentoring programs have typically used pre- and post-attitude and achievement measures. Most such programs have been with youth rather than young children.

Description of Program Development

In January of the school year we worked with two schools to initiate volunteer mentorship programs to support literacy development in young children. Mentors were adults who came to the school for at least one hour each week to be with one child. The hour was spent visiting while sharing a snack, doing a language development activity, reading books together, and doing literature response activities. The children selected books to bring to the sessions, and sometimes the mentors also brought books of their own. Mentors included university and college teacher education students, parents, retired teachers and principals, friends and relatives of school staff, and employees of a nearby bank. Mentors were provided with brief orientation sessions and handouts containing ideas on how to establish a relationship with a young child, how to share books with a child, and how to do paired reading with a child.

Both schools were in the same large school district in a major city in Alberta. School A was identified as 40th on the list of high-needs schools in the district, and School B was fourth on the same list. School A assigned mentors to all grade 1 children, most of the grade 2 children, and a few of the grades 3 and 4 children. School B assigned all of their mentors to kindergarten children. The teachers considered the needs of children and the preferences and characteristics of the mentors as much as possible when matching. For example, children who already had considerable relationship support outside of school, but who struggled academically, were matched with university students who were eager to try new instructional ideas that they learned at university. Children who appreciated a lot of personal attention and time to talk with adults were matched with people who offered maturity and a comforting presence. Mentors were also invited to indicate any preferences they had for the characteristics of a child they would like to work with. When possible the hobbies and interests of the mentor were also considered in matching.

Data Collection

This study reports on the interviews that were conducted with children, mentors, and teachers six to eight weeks after the weekly mentorship sessions had begun. In this research we hoped to learn about how the children and mentors experienced the mentorship sessions both in terms of the quality of the relationship and in terms of the academic support provided to the children.

The interview schedule used with children included the following questions.

1. You've been participating in a mentorship program. Someone comes to the school every week if they can to spend time doing things together with you. What do you do together when they come?
2. Do you like doing those things with your mentor? Do you enjoy it?
3. What would make it better or more enjoyable?
4. Is it helpful for you? ... How does it help you?
5. What would make it more helpful?

Children were interviewed in groups of three, asking each child the same question in round-robin style. Probing questions were used to clarify children's responses where necessary. Two researchers attended all interviews, with one researcher asking the questions and the other recording responses and adding additional follow-up questions. All interviews were audiotaped and transcribed. Interviews were conducted with all 27 participating children at School A: 15 in grade 1; 9 in grade 2; and 3 in grades 3 and 4.

The interview schedule used with mentors included the following questions.

1. To start, could you please introduce yourself? Are you a university student, do you work somewhere else, are you retired? ... How did you learn about the mentorship program?
2. How long have you been a volunteer mentor at this school?
3. How many children do you work with? At what times do you meet with them?
4. Can you describe some of the things that you do together with the child?
5. How has the nature of the activities and the feeling of the session changed over time? ... Was there a particular turning point?
6. Can you talk about the relationship with the child a little more? How did it feel at the start? What influenced it? If it changed, how could you tell it was becoming different?
7. Have you seen growth in the child? How would you describe it?
8. What are the challenges in the role that you have?
9. What are the pleasures or satisfactions?
10. What would make the sessions work even better?
11. What additional preparation would you have found helpful?
12. Would you recommend volunteer mentorship work to other people? What would you say to them about it?

Most mentors were interviewed in groups of two or three, asking each mentor the same question in round-robin style. Some of the mentors were interviewed individually. Interviews were conducted with 26 of the 38 mentors: 16 from School A and 10 from School B. (Two mentors worked with two children each.) Two researchers were present for the interviews, which were audiotaped and transcribed.

Findings

As the mentorship sessions had been in progress for only six to eight weeks, our first question attempted to determine whether the children and mentors experienced their relationships in a positive and significant way. We wondered whether there was enough intensity for these to count as mentorship relationships. At the same time, given the lack of research on mentorship programs with young children, we were not sure what intensity should look like in such a program. Our second question was whether the reading support component of the sessions showed benefits or promise. Although we had made some handout materials available to mentors, we had presented these in a low-key manner so as not to intimidate anyone. Our mentors had diverse backgrounds, and our orientation objective was to communicate that this was something they

were all capable of doing. Thus we were interested in everyone's perceptions of the value of the academic support provided by mentors.

The Mentorship Relationships

At this point in the mentorship program it was evident that mentors were finding the relationships satisfying in that the children's responses to them were gratifying. The following excerpts from mentors' interviews give examples of how mentors expressed the significance of the mentoring sessions to them.

> And just to be able to see that when I walk into the room he knows that it's our time, and he has a big smile on his face and he's very excited. That just give me a good feeling all over.
>
> She sees me and she's all happy and smiles.
>
> When he's with me he talks now the whole time.... I get great satisfaction out of knowing that that's going to benefit him too just by having a wonderful, really good interaction with somebody.
>
> If it brings a little bit of happiness into this boy's life to think that somebody would actually take the time and spend it with him and make a difference, that's where you see the reward.
>
> If people could realize how little it takes to turn a child around ... their self-esteem ... a half hour a week.

In the mentors' giving to the children, it was clear that the children were giving back a great deal in return. The children's obvious appreciation of the mentors made the time spent in mentoring significant and worthwhile for mentors.

The children's interview transcripts were replete with expressions of appreciation for their mentors. It was clear that for them, they had new and significant relationships with someone they loved or someone who brought them a tattoo or a newspaper article or book on their favorite interest such as figure skating or cats. Listed below are examples of how children expressed their appreciation of their mentors.

> It makes me feel proud of myself ... and she's proud too.
>
> I love my mentor!
>
> I am happy when she comes.
>
> I like it because my mentor is nice ... and she's nice to be with ... and I like to read to her.
>
> I like her coming and because I love singing songs to her ...
>
> It makes me feel good.
>
> He reads books, and he likes me lots.
>
> It's fun to talk to her.
>
> It makes me feel happy and proud when she comes.
>
> I like him very much, and I like it all the time when he comes, and I'm happy.
>
> She helps me read books that I can't read ... and she loves me.

As these excerpts illustrate, the children were highly appreciative of having someone special who was there just for them. They perceived the mentors as

liking or loving them. Conversations with teachers confirmed children's interviews as teachers described how the children would always be ready early with books under their arms ready to meet with their mentors. The mentor had quickly become a *someone* in their lives, someone who was nice, someone who liked them and was proud of them, someone who read to them, someone the child could sing songs to and talk to. It was fun to talk to one's mentor. Mentors made children feel good and also proud of themselves. Enhancing self-esteem is a primary goal of mentorship programs with a relationship focus.

Academic Support in the Mentorship Sessions

Because the mentors had not had an intensive training program on how to share books with children or support children's reading, we were interested to learn how children and mentors experienced the academic component of the mentorship program. In our interviews, mentors demonstrated an obvious engagement with the academic component of their sessions. They showed that they were thinking about the child as a reader, the child's skills and progress, and what they were doing to support the child's engagement and growth.

The following two excerpts show examples of mentors' thinking about the importance of the child's interests.

> Using different reading material has helped. Instead of always just reading him novels, we read comic books or Nintendo stuff and things like that that he's maybe more familiar and comfortable with, so that's helped.

> The students' reading levels are not very advanced at this point in time so I think it's very important that the children have a little bit of say in what they're reading. It has to keep their interest and you certainly want to keep them liking the program.

Mentors' comments revealed that they noticed and looked for growth in the child's reading. The following are examples of such reports.

> I also tape-record her too when I go see her and have her read. So the last few times that I've been doing this I'll tell her, "You select your book that you want to read." ... Then I'll tape-record it on the second read, and then I'll go through the words that she doesn't know and write those down. And I played it back for myself last week after I got home, to the very first time she read and to this time, and it's a lot more fluent.

> He's much better than he was earlier. It's great. We're working on the alphabet right now, and he doesn't really recognize his letters, but I'll ask him what a letter is, and so then he'll go through A-B-C-D. He'll do a little song.

> We've been working a lot with stories right now, and he recognizes now that books have titles, they open, and you read left to right. And I've tried to get him to follow along with the print and stuff with me while I read and recognize certain letters.... We're working on the letter S, and he really likes the sound of S, and he always says "snake." And he'll pick out the letter S in the text now.

> She usually brings an easy book to read to me. Then I read her one that's a little bit harder. She remembers what I've read and she reads it back to me.

Many of the mentors' stories illustrated their attention to and concern about comprehension and meaning in reading. The following are examples of the different ways they talked about focusing on and supporting comprehension.

> He would be a character and I would be a character.... He'll pick up cues from me when I'm reading about something, and I'm sure he's thinking about how I'm interpreting.

> And I think helping reading stories and stuff like that encourages literacy as well, and talking about your stories and just having an imagination ... just being able to imagine what the story is going to be like or make your own kind of story up, and being able to think about it and then communicate that into language.

> What I really find fascinating about her is that she would love to read you a story instead of me reading her a story.... And so she would just love to sit there and read the story to me about three different times, and every time using a different version.... She doesn't read the words, but she looks at the pictures, and then she just tells the story from the pictures. And then from what she's heard before, if the story's been read to her before, she just kind of makes up her own story.

> He usually brings an easy book to read to me—one that he's read before. The book is simple so he doesn't have to concentrate much to comprehend it. I try to read him a more challenging book and make him think and talk about all the details and background and what's going on in the environment of the story. Then I know he has to stay tuned in to comprehend it.

Finally, mentors also talked about how they helped children with difficult words in reading. Here is one example.

> What we do is, he will try to pronounce the word, and I don't immediately correct him. I'd rather have him try to sound it out, and then if he's just at a roadblock, then, before he has frustration, I'll just go, "Okay, let's look at that word together." And so we'll sort of sound it out by the syllables, and that's how I handle situations like that.

It appears that for each mentor there is a meaningful story about how literacy has been supported in the mentorship sessions. The full stories are probably as different as all of the children and mentors are. It is clear, however, that time is spent on reading, the mentors work to make sense of the children as readers, mentors have objectives or purposes in mind, children and mentors respond to one another, and the mentors discern progress.

In School A, where grades 1 and 2 children had mentors, the teachers reported that children showed more confidence both in their behavior and in the work they produced in class. In School B, which was fourth on the list of high-needs schools in the district, only the kindergarten children had mentors. The teacher also taught kindergarten in another school in the mornings. She noticed that the children in her School B kindergarten class were very quiet and not inclined to vocalize in class. She observed, however, that after their first 20 minutes with their mentors, they enjoyed talking to them nonstop in their one-on-one sessions. As the mentorship program progressed, more of the children also started speaking more in class, joining in songs, and putting up their hands to answer questions. In the following interview excerpt a mentor from this school describes how a child came to respond quickly to the one-on-one interaction.

> When I first met him, he didn't want to really talk; he was very shy. And the teacher had mentioned to me that he really needed to work on his vocabulary

> and his language and talking about things, and when I came again, he just wouldn't stop talking.

For young children confidence and willingness to try activities presented by the teacher can serve to support further their immediate academic gains and their long-term constructive habits and attitudes as students.

The children told us in many different ways that their mentors were helping them to learn to read. The following excerpts from children's interviews give examples of how they expressed this.

> She's always there for me, and if I miss a word she's always guiding me, she's guiding me along, she's reading with me, the same word.
>
> She helps me with words I don't know so it's fun!
>
> She helps me with the words when I get stuck because I get stuck a lot.
>
> It helps me read better.
>
> She helps me sound it out when I don't know.
>
> He breaks up longer words into smaller words.
>
> I like it because I can read long words
>
> It's helpful because I can read the big, fat words.
>
> She explains it so it can be something fun!
>
> She shows me the word, then I remember it next time.
>
> And it's fun reading books!! And it's really, really, really fun writing words down on the paper.
>
> I know new words because my mentor read them to me.
>
> She reads it to me, then I can read it back to her.
>
> You learn new words and stuff ... and all the rhyming words and all—you read better.

The child's statement "She helps me with words I don't know so it's fun!" pulls together so much of what all the children were saying. Throughout the interviews the children said that the whole activity of reading with their mentors was fun. We expect that this is probably a general tribute to the one-on-one attention, praise, and mentors' efforts to support interests, challenge, and comprehension. Children also stated that mentors made it possible for them to read harder books than they otherwise could. Overall, however, the children spoke insistently about the value of mentors helping them with difficult words. As we puzzled over this focus in the children's comments, we searched our own experiences for an analogy to help us understand the children's perspective. Finally, we thought about our own experiences of learning to use new computer systems and software. The children's statements and our own memories of acquiring some computer literacy help us to appreciate how frustrating it must be for some children to try to learn to read without the one-on-one help provided by caring, supportive mentors. One can hear in the excerpts above that reading, the mentor, fun, and increasing competence have become linked in the experience of these children for whom mentorship and a reading support program have become a powerful combination.

Discussion

These findings suggest much promise for mentor-supported literacy development for young children. The children's appreciation and receptivity serve to keep mentors engaged. It is perhaps because the children are so young that they trust and respond to the mentors so quickly. The children enjoy the mentors' attention and one-on-one time for talking and sharing interests or songs. Time with mentors makes them feel happy, good, and proud. Self-esteem is supported. The mentors make sense of the children as readers and work with their interpretations to try different approaches and to look for growth. The children enjoy reading and learning to read with the support of their mentors. Reading with their mentors is fun. The children's pride in their work with their mentors spills over into increased confidence and participation in classroom activities. As preventative programs such initiatives appear to warrant further development and research.

In the second phase of the research program we plan to learn how mentors were so successful in such short periods. This component includes case studies of a number of mentor pairs to document strategies used by mentors and experiences reported by both children and mentors over the duration of the mentorship relationships. The third phase will focus on how relationships are built or on how they evolve over time between nonrelated adults and young children. Findings from these studies can serve to inform orientation and training of mentors and program coordinators for new programs of this kind. In a concurrent study we are documenting the experiences of other existing programs to clarify a variety of volunteer mentorship program models for a broader range of grade levels. To complete the research on the program in School A, assessment data from grades 1 through 3 will be examined for the grade 1 class to participate in the mentorship program.

We have been strongly impressed with the immediate value and long-term promise of volunteer mentorship programs to extend support for the social, emotional, and academic growth of children in schools. It appears that such programs may be able to make a difference to the life chances of individual students. If such programs become more commonplace, our communities may also find such collective caring experiences to be restorative. We will give the last word to one of the mentors who said, "It's a good program and I'm glad I did it!"

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Beyond the Benchmarks: Toward a View of Adult ESL Programming in a Literacy Framework

With the introduction of the Canadian Language Benchmarks, a matrix for describing English proficiency among adult immigrants, ESL educators have been provided a tool for communicating with others regarding the educational aspirations of adult immigrants. In this article I contextualize the significance of the Benchmarks in broad educational and social terms rather than, more traditionally, as relating to enhanced outcomes or effects only on second language proficiency. To this end I have situated the Benchmarks relative to another, more universally applied contemporary measure of adult language proficiency, namely, the literacy levels developed and articulated through the International Adult Literacy Survey (IALS). Education is presented as a vehicle for the development of social cohesion in a culturally diverse society and economy. The article points to the potential for aligning the Benchmarks with other systems for describing adult competences to enable more systematic integration of the experience, skills, and ideas of newcomers through Canada's adult education systems.

Le Canadian Language Benchmarks, une matrice permettant d'écrire la capacité linguistique en anglais des immigrants et des immigrantes adultes, fournissait aux enseignants et aux enseignantes de l'anglais langue seconde (ESL) un outil pour communiquer avec d'autres les aspirations éducationnelles des immigrants et des immigrantes adultes. Dans cet article, je place dans son contexte l'importance des CLB en des termes éducationnels et sociaux généraux plutôt que selon la tradition, se reportant uniquement aux résultats ou effets accrus dans l'acquisition d'une lange seconde. À cette fin j'ai situé les CLB par rapport à un autre, le International Adult Literacy Survey (IALS) pour mesurer les niveaux d'habileté linguistique, une mesure de compétences linguistiques plus contemporaine et plus universellement appliquée. On présente l'éducation en tant qu'un moyen pour le développement de la cohésion sociale dans une société culturellement et économiquement différente. Cet article indique la possibilité d'aligner les Benchmarks sur d'autres systémes pour décrire les compétences des adultes permettant une intégration systématique plus grande de l'expérience, des habiletés et des idées des arrivants dans les systèmes canadiens d'éducation aux adultes.

Traditionally, much of the teaching and learning that has occurred in adult English as a second language (ESL) programs has remained a mystery to mainstream educators and to the general public. Generally, the sources of funding for adult ESL (e.g., Secretary of State, Citizenship and Immigration Canada) have been different from the sources for other kinds of education, in recognition of the foreign origins of newcomers rather than their Canadian goals. ESL programs have also tended to be physically isolated. They have typically been associated with nontraditional educational venues: church basements, community centers, cast-off school sites. In many instances the teacher

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was and continues to be one of the few links between the geographic community and her students. The ESL teacher's position has come to include the role of interpreter of culture and societal systems for immigrants. Classroom-based strategies to facilitate social integration have tended to be technical and teacher controlled. For example, a teacher may assign ESL students to interview three Canadians about their occupations. The expectation is that students will return to class and report on their experiences. The assumption inherent in such an approach is that through increased contact students will begin to feel more comfortable speaking with Canadians as well as gain practical understandings about life in Canada. Unfortunately, in many cases the anticipated outcomes remain remote from the learner. Newcomers faced with the complexity of just reaching out to Canadian-born individuals, let alone situating themselves in contexts that provide opportunities for genuine human communication, may even lose motivation to meet and talk to more established Canadians about anything more consequential than the weather.

This article explores the possibilities for the use of the recently introduced descriptive scale of language proficiency, *Canadian Language Benchmarks* (CLB, Citizenship and Immigration Canada, 1996). It seeks to contextualize the significance of the Benchmarks in broad educational and social terms rather than more traditionally in relation to enhanced outcomes or effects on second language proficiency. To this end I have situated the Benchmarks relative to another, more universally applied contemporary measure of adult language proficiency, namely, the literacy levels developed and articulated through the International Adult Literacy Survey (Statistics Canada, 1995, 1996). The argument I present is supported by the notion that adult education in Canada should be distinguished by an articulated philosophy to increase the social cohesion of a culturally and linguistically diverse population. By *social cohesion* I mean the kind of interpersonal relations that allow people to work and live together without constant negotiation of social rules. Such an understanding is required to facilitate the building of personal connections that will enable newcomers to contribute their skills and understandings in a shared Canadian framework. The same philosophy holds great promise for the education of more established Canadians as it encourages the development of cultural skills necessary not only for negotiating a place in the neighborhood, but increasingly in the global marketplace (Botkin, Elmandjra, & Malitza, 1979).

Literacy Skills for the Knowledge Society (Statistics Canada, 1997), which reports additional results from IALS, points farther in this direction. It articulates the need for community-based strategies that connect elements of Canadian society to address literacy needs in ways that are global and that respond to the changing needs and goals of citizens. Although IALS does not address the issue of cultural diversity directly, it does hold promise for examining literacy outcomes as socially situated.

The Canadian Language Benchmarks: Some Background

In 1996 the Government of Canada released the *Canadian Language Benchmarks,* a major advance in description of levels of proficiency among ESL learners in Canada.

> CLB is a task-based descriptive scale of language proficiency in English as a second language, expressed in terms of communicative competence as 12 benchmarks (reference points). The CLB describes learners' placement on a language continuum from Benchmark 1 to Benchmark 12 for three skill areas. It reflects the increasing levels of communicative demand placed on an adult newcomer to Canada, primarily through the selective focus of her/his settlement and integration needs. (Citizenship and Immigration Canada, 1996, p. 1)

Use of CLB permits the implementation of a set of standardized ESL levels on a national basis, developing a national view of language that is systematic and directed. Now a student who is rated at CLB Level 3 in Ontario can move to Alberta and resume his or her studies at a similar level. The need for each school or program to maintain its own rating scale is disappearing. The CLB sets the stage for establishing coherence in levels and outcomes of ESL programs across the country.

One of the strongest features of the CLB is that it provides a potential basis by which ESL practitioners may communicate with each other effectively about learners' proficiency and about language-related aspects of adult education. Of even greater significance, however, is the document's possible use by the ESL community for articulating newcomers' abilities, skills and learning needs to other adult educators, to employers, and to Canadians in general. What the CLB does not currently do, however, is relate outcomes of ESL learning to parallels applied more generally in the population, that is, to measures like adult literacy. This observation is based on the premise that learning ESL should lead to increased opportunity for social and economic integration of immigrants and to increased literacy skills (Statistics Canada, 1996).

Most adult immigrants to Canada hope to improve their English so that they can communicate with their neighbors, co-workers, and friends. They wish to become informed voters, consumers, and citizens. When opportunities to integrate through education are restricted, newcomers may learn instead to adapt to their isolation. An adult ESL learner, Bahman (Ho, 1993) puts it this way:

> I know about all the world on just only TV. Sometimes my friend she came and she tell me "this happened in your country." I feel not happy. I'm very quiet now, you know. Inside my body is very sad because I don't.... I can't say anything and I can't talk. Most of the time I feel like learning English is like being in jail.

Bahman draws a picture of the alienation she experiences in Canada. She has become, of necessity, a voyeur: she cannot access the print media in English. She feels powerless because of her loss and, even worse, cannot even express her frustration with her situation. Who would listen? The opportunity to learn English is not helping Bahman to articulate her experience or to connect with others. Instead, the English words she learns seem like bricks separating her from her own past and from the world she once knew. Perhaps Bahman's experience is not that uncommon among immigrant learners whose opportunities for education are restricted to ESL.

Examining Literacy in ESL Contexts

ESL educators and learners often experience isolation from the broader educational community. Language prerequisites are a common barrier that ESL learners must pass before they are permitted to enter the adult education credit system. For ESL educators to reinterpret their work using the Canadian Language Benchmarks and now to see it as a part of that broader system requires a major conceptual shift. The isolation that has contributed to the segregation of ESL learners has had an equally devastating impact on ESL teachers' views of their work. Views of the role of language in education are substantially different among ESL teachers than among teachers who work with literacy in adult basic education. Jones (1992), in an article that reports results of the Survey of Literacy Skills Used in Daily Activities, suggests that this disparity is largely "due to an inadequate conception of literacy, and of reading, in the second-language community. The great majority of research in second-language learning has focused on post-secondary students in academic programs, not on immigrants in Canadian programs" (p. 203). Bell and Burnaby (1984) amplify Jones' contention, suggesting that "although a considerable amount of material has been published on the ways in which students learn to read and write, the bulk of research has been based on children learning their native language" (p. 2). Literacy education has not been a major topic in the preparation of teachers and researchers working in the ESL field.

Working from a mainstream definition of functional literacy, Bell and Burnaby (1984) describe most ESL literacy learners as people who coped with literacy difficulties in their home countries. They identify four types of ESL literacy learners that teachers may encounter.

1. Students who are illiterate: those with a maximum of two or three years' schooling in the native language.
2. Students who are semiliterate: those who have had up to eight years of formal education.
3. Functionally nonliterate students: those who have basic literacy skills in their own language that allow them to fulfill very simple tasks in English, but who are unable to fill out forms, follow instructions, or read for pleasure.
4. Non-Roman alphabetic students: those whose native language is not written in the Roman alphabet.

This scheme, although useful in describing the needs of literacy learners with limited education, does not address the broad spectrum of literacy experiences represented among ESL learners. Although those with limited education or using non-Roman alphabets do have specific needs for literacy education in English, so do those with good basic or even high levels of education in their home countries. The process of adaptation to citizenship, employment, and social participation in a new country demands skills similar to those experienced by the growing numbers of Canadians now involved in training and retraining to increase their future employability. Literacy becomes a key factor in the negotiation of new opportunities. But by what definition is learning that is associated with economic, political, and social adaptation considered an aspect of literacy development? In fact, if social integration is an intended goal of Canada's Immigration and Settlement programs, definitions of literacy ap-

plying to the general population need also to be considered as they concern learning outcomes among immigrants.

The *Canadian Language Benchmarks* document could provide a basis for making that connection if it were contextualized vis-à-vis similar indicators describing proficiencies and capacities of mainstream Canadians. CLB could provide a framework for dialogue between ESL and mainstream educators that responds to the programming challenges in adult education created by the presence of substantial numbers of immigrants in Canada. However, the conceptualization of literacy among second-language speakers, as currently presented in the Canadian Language Benchmarks is too narrow.

> ESL literacy is a program for individuals who are learning English as a Second Language and who are not functionally literate in their own language for a variety of reasons. (Citizenship and Immigration, Canada, 1996, p. 113)

The Benchmarks definition focuses only on learners' second language skills and their development and does not connect language proficiency to other important factors in literacy development such as intercultural adaptation, developing a sense of belonging in Canada, increasing personal expression and social participation. This is the crux of my argument: if Adult ESL educators do not engage with their work as situated in adult education and, more broadly, in the factories, the institutions, and bingo halls of everyday experience, the programs that they develop and implement, in spite of claims to the contrary, can only serve to impose limits on the possibilities for participation by a growing segment of society.

This argument is supported by an understanding that adult literacy in Canada should be distinguished by an articulated philosophy that encourages the social cohesion of a culturally and linguistically diverse population. Such an understanding will foster the formation of personal connections that enable newcomers to make a real contribution.

Literacy, Economy, and Social Cohesion

In recent years economists have begun to write and speak about the connections between adult literacy and the development of the economy and society. Many experts are voicing their views regarding the role of adult literacy in shaping Canada's future (D'Cruz & Rugman, 1992; Economic Council of Canada, 1992; Government of Alberta, 1993; Statistics Canada, 1996). These same theorists are among the most influential voices heard in the clamor to change the types of activity now taking place under the rubric of adult education. While economists and sociologists speculate about the need to develop skills that will translate into economic advantage, they may be overlooking one of the key functions of education in any society, that of facilitating cooperation among citizens by teaching skills and values that support social relationship building and social cohesion.

The Economic Council of Canada report *A Lot to Learn* (1992) introduces the concept of social cohesion as a key factor separating the Canadian education system from those of more competitive countries, notably Germany and Japan. The main idea is that Canada should increase social cohesion as a way to increase its productivity. The implication of the report is that Canadians do not currently treat education as a vehicle for enhancing a sense of belonging to the

community, and that our education system does not give sufficiently direct signals about rewards attached to education. Perhaps the problem of social cohesion through education should be considered as it relates to the characteristics of the three communities being compared: Germany, Japan, and Canada.

A major difference between Canada and both Germany and Japan important to the project of furthering social cohesion is the degree and treatment of cultural diversity among citizens. Japan is ethnically a rather homogenous state where most citizens share thousands of years of history and values. Germany, on the other hand, is more culturally diverse than Japan, but has developed a way to deal with its minorities that is different from either Japan's or Canada's. Germany encourages the immigration of large numbers of "guest workers," admitting migrants from a variety of countries with the express purpose of fulfilling labor requirements, but with no intent ever to grant German citizenship (Skutnabb-Kangas, 1981).

The project of encouraging social cohesion in a community committed to a philosophy of cultural diversity is truly revolutionary. Canadians are experimenting with a philosophy of nation-building that is unparalleled in the world. The articulated vision of a diverse society, however, may just be lip service to a noble goal if Canadian society does not develop and exercise strategies by which movement toward that goal may be realized. This same point is echoed by social critic Ralston Saul (1997) who observes that,

> If their [immigrants'] role is in some way troubling, then it is entirely our fault for not assuming our full responsibilities to smooth the difficult path of immigration. And the primary institutional responsibility is public education. You cannot have high levels of immigrants and expect them to find their way if you are not willing to spend well above the per-capita norm of western countries on education. (p. 440)

At a time when financial support for education as a whole is being reduced by various governments, Ralston Saul argues for increased funding for immigrant education as a means of ensuring integration. This recommendation assumes that making available more of the kind of programming that is currently available for immigrants could result in qualitatively different outcomes. It is my contention, however, that without informed decision-making and well-developed strategies for public education that support social and economic integration, few meaningful changes will be made. In the end it may be the economists and business people in their push for globalization and economic rationalization of social systems who will force the hand of adult educators by situating unchallenged educational issues in the pragmatics of economy and society.

IALS: Toward an Inclusive Definition of Literacy

It is with the publication of the findings of the *International Adult Literacy Survey* (Statistics Canada, 1995, 1996) that full representation of adult immigrant literacy is made relative to the literacy levels of other Canadians. Five discrete literacy levels are described, with Level 1 the lowest and Level 5 the highest. The definition of literacy articulated by the international study (Statistics Canada, 1996) is an inclusive one, describing

> the ability to understand and employ printed information in daily activities, at home, at work and in the community—to achieve one's goals, and to develop one's knowledge and potential. (p. 13)

The IALS definition is articulated in terms of the lived experience and aspirations of individuals. It connects the development of skills with factors resident in each person: goals, knowledge and potential. In the case of immigrants, goals for social integration and participation take on increased importance as they form the curriculum for literacy development.

With regard to proficiency ratings reported by the *International Adult Literacy Survey* (Statistics Canada, 1995), the results for adult Canadians, born in Canada or immigrant, are summarized in Table 1 as a percentage of total population. Table 1 reveals that the largest proportion of Canadian born adults have a proficiency rated at Level 3, with lower proportions of individuals represented both above and below that level. Immigrants, on the other hand, demonstrate a bipolar distribution, with higher proportions of foreign born individuals concentrated both at the highest and lowest ends of the proficiency scale than at Levels 2 and 3. Although useful for the purpose of group comparisons, this kind of picture is not helpful in trying to portray how the literacy experience of immigrants relates to those of other Canadians.

When first reading this chart I was reminded of a conversation I had with a demographer a number of years ago about documenting educational needs among adult immigrants. I was told that I should not worry about literacy and educational needs among immigrants because they tended to be better educated on the whole than Canadians. The demographer, of course, was presenting a particular kind of picture of immigrants. The perspective on societal participation of immigrants presented by demographers tends to focus on economic indicators, such as labor force participation, business starts, income levels, and need for social assistance (Samuel & Conyers, 1986; Thomas, 1990), or on immigration as it relates to Canadian fertility patterns (Hersak & Francolini, 1987; Taylor, 1987). Educational need for participation is seldom examined. Immigrants are not portrayed as people with lives, with experiences, or with goals shared with other members of society. They are objectified and reduced to economic units. They are no longer your friends, your neighbors, or your in-laws.

The results of the IALS (Statistics Canada, 1995) reveal a different picture of immigrants than that described by the demographer. Although they support assertions of the immigrants' overall proficiency by identifying 28.3% of foreign-born individuals as achieving Level 4 or 5, as compared with only

Table 1
Literacy Levels Among Canadians—Those Born in Canada and Immigrants

	Level 1	*Level 2*	*Level 3*	*Level 4/5*
Born in Canada	14.8	25.6	35.4	24.2
Immigrant	31.1	21.3	19.3	28.3

(Statistics Canada, 1995, p. 71).

24.2% of Canadian-born, they reveal a large number of immigrants (52.4%) with literacy skills rated only at Level 1 or 2. The IALS picture, although still flat, allows room for interpreting why the literacy profile of immigrants is so different from that of Canadian born people. Educators should be asking about how the experience of large numbers of immigrants at both ends of the spectrum differs and how education might address differences in the total group. What kinds of education might help immigrants achieve their own goals and develop their knowledge and potential?

Given the dimensions of the IALS definition of literacy (Statistics Canada, 1995), not only to "understand and employ printed information," but to do so in a variety of meaningful contexts "to achieve one's goals and to develop one's knowledge and potential," any understanding of literacy that speaks to the needs of immigrants must address more than English skills as an indicator of proficiency. Engagement with the experience of literacy in a novel context—resituating one's experiences so that commonalities and differences can be recognized and articulated—is perhaps the greatest task that adult immigrants must accomplish. Literacy, especially as it concerns immigrants in the process of resituating themselves in Canada, must incorporate a view of the individual not only as possessing, but also as able to apply language skills in order to achieve personal goals.

The IALS definition of literacy offers significant implications for those working with ESL learners, for it draws attention to the necessary connection between literacy skill development and its practical application (i.e., citizenship and economic participation). Although the Benchmarks' discussion of literacy does address the personal experience of ESL learners, including "war, torture, abuse or isolation" (Citizenship and Immigration Canada, 1996, p. 114), these are presented as factors affecting learners' confidence to learn skills, not as aspects of life to be encountered, possibly even rearticulated, in a new sociocultural-linguistic environment.

Toward a More Inclusive View of Immigrants in Education

Throughout this article I emphasize the transactional nature of literacy development as it pertains to adult immigrants in Canada. It is interactive not only in terms of the relationship between the reader and the text, but also as it increases opportunities for expression in and comprehension of the community of use. Increased literacy permits a whole life: participation in political process, understanding community events, and increased economic opportunities.

The discussion began with an examination of the potential of the recently developed *Canadian Language Benchmarks* (Citizenship and Immigration Canada, 1996) to describe ESL skill levels and to allow for increased communication between ESL educators, mainstream educators, employers, and decision-makers. This allows for tracking of progress and for description of need. Progress, however, implies directionality. Moving toward what? ESL programs have traditionally been segregated from other adult education. The notion of integration suggests that at some point immigrants and Canadians have opportunities to meet and learn about each other. I argue that there is a tremendous amount of work to be done to ensure that all Canadians, not just

immigrants, have the opportunity to develop skills and attitudes conducive to living and working in a culturally diverse community.

A practical strategy for increasing the usefulness of the Benchmark indicators is to relate them to other types of indicators used in mainstream education such as grade levels, TABE scores, and reading levels. Such equivalencies would enable increased communication between educators about ESL learner needs and reduce perceptions of specialism often associated with adult ESL teaching. What is needed, then, is discussion among educators about how to connect and build on what is known about immigration, education, and social development.

Further, I argue that the Canadian Language Benchmarks need to be conceptualized in a literacy framework, that is, based on a view of proficiency that intends inclusion, participation, and expression. The definition developed for the *International Adult Literacy Survey* (Statistics Canada, 1995) includes notions of skill development for a purpose. Measuring literacy as socially and economically enacted outcomes of skill development would require a major shift from current approaches for evaluation of ESL learning. The goal of ESL education, however, should be to encourage the situation of learners in the broader society and to express proficiency in those terms.

The pressures that face humanity at the end of the 20th century are immense, but the need for imagination is greater. In a democratic society issues such as the environment, technology, and social and political change should be concerns involving all citizens. In a culturally diverse democratic society such as Canada's, the shape of the body politic itself must become curriculum as we struggle for ways to acknowledge the differences among us (Mouffe, 1992). Canada cannot consider itself a progressive nation if Canadians encourage the immigration of large numbers of people without conceptualizing in an inclusive way (we and they together as we) the impact of such change on all our systems, including adult education. To address this goal educators need to engage with immigrant students as participants in Canadian life, not as mere spectators.

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Becoming a Teacher of Writing: Living Between and on the Lines

This article discusses aspects of a larger study in progress concerning the professional development of formative-years (defined as years 2-7 of teaching) secondary schoolteachers of written composition. Although learning to teach well is a complex task in itself, English language arts teachers face additional pressures due to the nature of the discipline as it is currently conceived. Aspects of the project pertain to the teachers' developing abilities to reconcile personal and professional tensions, as well as teachers' responses to the tensions of job insecurity and of reconciling pedagogical beliefs with pressures stemming from the provincial examination system.

Dans cet article, on discute différents aspects d'une plus grande recherche en cours maintenant qui cherche à étudier la composition écrite des enseignants et des enseignantes du niveau secondaire lors de leurs années professionnelles formatives (à partir de la deuxième jusqu'à la septième année d'enseignement). Apprendre à bien enseigner est, en soi, une tâche déjà complexe mais les enseignants et les enseignantes des arts langagiers doivent affronter plus de pression en raison de la nature-même de la matière enseignée telle qu'elle est conçue maintenant. Certains aspects de cette recherche traitent du développement des habiletés d'être capable de réconcilier les tensions personnelles et professionnelles chez les enseignants et les enseignantes, ainsi que leurs réponses associées aux soucis avec la lacune de sécurité dans leur emplois et comment ces pédagogues font la réconciliation avec les pressions qui émergent du système provincial d'examens et de tests de rendements en Alberta.

> How teachers teach writing, or probably anything else for that matter, is a function of who they are, what matters to them, what they bring with them into the classroom, and whom they meet there. How they go about their work can be affected in certain important ways by the conditions in the school, in the community, in the culture at large, but what affects teaching most deeply and dramatically are the themes, the interests, and the deeply felt concerns that affect and give shape to teachers' lives. (Perl & Wilson, 1986, pp. 247-248)

Teaching children to express themselves and to communicate in writing is a complicated and vital task, made more so by the increasingly complex cultural and social milieux of our schools. Although much attention has focused on these changing milieux, we also should attend to the practices of teachers striving to develop the writing competence of diverse students. For teachers in their early years of teaching, this task has added complexities.

Background

In preservice student teaching experiences, neophyte teachers typically focus on themselves as performers in the classroom (Britzman, 1991) and negotiate the complexities of their identities as teachers (Sumara & Luce-Kapler, 1996).

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Research and accounts of the "trial by fire" of first-year teachers makes for often harrowing, occasionally uplifting, reading (Kane, 1991), with first-year success often measured as survival with a willingness to return for a second year.

However, as teachers do move into those second years and beyond, their professional practices begin to look outward and beyond the immediate moment. The early formative years constitute a key developmental stage when teachers typically begin to plan and teach more responsively to individual students and to classes, assert themselves in school cultures (Reynolds, 1992), and often move to different grade levels for new challenges. These developments occur amid sometimes conflicting expectations and responses of students, administrators, parents, the public, and the teachers themselves: such conflicts are a natural consequence of the complicated enterprise of teaching.

However, while they grow in confidence and ability with experience, teachers today are increasingly buffeted by such tensions as an uncertain job market and public and professional demands for accountability and ever-higher scores on external examinations. In addition, for English language arts teachers the nature of their discipline adds particular pressures that compound the difficulties of learning to teach.

Research in Progress: The Formative Years of Becoming a Teacher of Writing

In this article I discuss aspects of a larger study in progress involving secondary schoolteachers who teach written composition. The purpose of the study is to document the developing practices and beliefs of teachers in their early, or formative, years of teaching with a view to understanding the circumstances and considerations involved in their choices for pedagogical practices. These early, formative years are a period I am arbitrarily fixing as the second to seventh years of teaching. The study suggests implications for teacher education, for continuing professional development, and for pedagogy in written composition.

The focus of this article is on aspects of the project that pertain to the teachers' developing abilities to reconcile personal and professional tensions of learning to teach written composition in their immediate contexts of beginning to teach in Alberta during the 1990s. The teachers' perceptions and responses to the tensions of job insecurity, the particular tensions involved with becoming a teacher of English and of written composition, and the reconciliation of their pedagogical beliefs with pressures stemming from the provincial examination system are reported.

Questions. This investigation raises essential issues regarding the theory and practice of contemporary pedagogy in written composition. The research explores how several teachers in their formative years reconcile many tensions:

- How do they construct meaning within their particular contexts?
- How do they construct and interpret their practices?
- How do they develop pedagogical practices that teach for life and for "the test"?
- How do they plan for and accommodate the changing demographics and diverse needs of their students?
- What roles do new technologies play in their teaching of composition?

- What relationships exist between their personal practices in writing and their teaching of writing?
- How do they reconcile conflicts between their beliefs and the "received wisdom" of more experienced teachers?

Participants. Voluntary participants in this research work in varied teaching contexts (urban and rural, junior high/middle school, and senior high levels) and have been teaching between two and seven years. There are five primary ongoing participants, and I have conducted occasional interviews with several other formative-years teachers as well. Quotations are included both from primary and casual participants. Of the primary participants four teach at the high school level (of whom one teaches adults upgrading for high school diplomas), and two teach or have taught at the junior high/middle school level; one of the participants began teaching at the junior high level and moved to senior high after several years. The participants range in age from the late 20s to upper 40s. Although anonymity is not considered necessary or desirable in many circumstances of contemporary research concerning teachers' practices, I am using pseudonyms to report this research.

Data sources. Data sources include periodic semistructured interviews and informal conversations; classroom observations; written documents (teaching handouts, students' writing with teachers' responses, and occasionally, teachers' writing); and correspondence with participants. The semistructured interviews include several preplanned leading questions, with follow-up and branching questions as appropriate; they generally include a discussion of the transcript of an earlier interview for clarification, reflection, and/or extension. The informal conversations have no preplanned structure.

Data analysis. This research is ongoing, and so the discussion that follows is necessarily a developing body of interpretation. Themes emerge from the data, with triangulation possible both in reflective commentary and in observations, and to a lesser extent in analysis of documents. The teachers' comments and practices resonate with each other in interesting ways: similar topics or themes echo in their discussions of their varying circumstances and perspectives, but play out in individual ways as the teachers interpret their contexts.

Hard Times: Contemporary Contexts of Beginning to Teach

> He hasn't handed in his letter of intent yet. I think if at all possible they'll try and bring me back, I think. But ... I'm not too concerned. There's lots of other things I can do. (Jay)

The past decade has not been an easy time to begin teaching, as it has not been an easy time to enter most other careers in North America. The Alberta context during the years in which these teachers have entered the teaching profession has been noteworthy for the lack of hiring in general. Even those teachers who complete a successful first year of teaching may have uncertain prospects for full-time and/or continued employment. Positions that do open for new teachers are often temporary, owing to the district's need to hire for a maternity leave, stress leave, long-term absence, teaching exchange, or other situations where an experienced teacher takes precedence over one with a term contract.

Two of the participants in this study, Jay and Ellen, were initially hired for temporary positions. In his first year Jay's district awarded him its distinction for excellence in first-year teaching; nevertheless, his prospect for a second contract hinged on the prerogative of an experienced teacher to reclaim his position. When the teacher opted to continue his leave of absence, Jay received another contract; as his second year drew to a close, he again awaited the decision of the experienced teacher.

Ellen had already taught in another district in a similar situation, and as the year drew to a close she awaited word about the possibility of a renewed contract in her new district. She and her partner, having had a commuter marriage for a year, struggled to plan their lives around this uncertainty:

> My husband and I just kept changing our entire life's plans on each week's estimation of whether there would be a job for me there. So now I've just decided to live my life and hope I get a job, instead of letting the job dictate my life. I know it's no way to be successful, but hopefully it's a way to be content ... I think before, like in my parents' generation, personal identity was so tied to occupation. Because then, you would have a job for life. Now, if I tie my identity too closely to my job, I am in big trouble, because I would quickly learn "You're disposable." Because even very good talented people are being shuffled around, treated like they're interchangeable, and the employers don't care about the impact on individuals' lives. (Ellen)

Although the instability of jobs has been a common workplace situation in most fields, for teachers this situation is especially difficult, as teachers are still expected in the eyes of the public and many in our professional community to feel an almost missionary calling or vocation. Teacher educators often portray teaching as a calling, as "a way of being" in the world. Britzman (1991, 1994), Clandinin and Connolly (1995), and others have written of the development and negotiation of teacher identities as student teachers assume the mantle of teacher in the classroom and the broader community. Successful teachers seek to integrate the personal and professional, to be oneself in the classroom and to feel authentically present rather like an imposter, acting as teacher. In the words of an inspired preservice teacher, "The teacher needs to *be* what the teacher is teaching" (McClay, 1992). However, Jay and Ellen learned a different lesson in their beginning years: they learned the folly of tying one's self-concept too tightly to their images of self as teacher. Although they both clearly love teaching and have confidence in their growing abilities as teachers, they learned to keep their minds open to other possibilities.

Once hired, the new teachers have joined an older and increasingly demoralized teaching force, as family and societal tensions spill into the classrooms and the staffrooms of our schools and as teachers work with an increasingly diverse student population. Although some district personnel officials indicate that they look for new teachers who are strong enough to be change agents, the burden on relatively inexperienced teachers to act as change agents is heavy, especially in view of the insecurity of some of their jobs.

> When I was a student teacher, I remember veterans telling me to get out while I could, that they were counting down to retirement. Well, here, no one says that to me because I'm new—they know I want to be there. But they're thinking it. They tell me I'll burn out unless I find easier ways of doing things. They try to

> help—they're really nice, but I don't want to do those stupid worksheets. I guess I'll burn out if I sit back like them. (Bethany)

With an increasingly diverse and complex cultural and social mix in our classrooms, educators are becoming more aware of the pedagogical implications of such diversity. Ironically, this awareness comes at a time of heightened emphasis on standardized tests. Although the students may be diverse, the provincial tests can act as levellers in the eyes of the teachers. Carolann, teaching high school-level courses to adults, is impressed by the cultural diversity in her classes—many of her students are ESL learners with varying degrees of comfort in the predominantly English-speaking society in which they live. Nevertheless, as Carolann notes ruefully, "they are all aiming to take the same diploma exam."

Content and Discontent: Autonomy, Responsibility, and Confidence

English language arts as a school subject has been both applauded and condemned as a "contentless" subject, sometimes by the same people in different moods. Enthusiasts relish the developmental nature of the subject, noting its limitless expanse and possibilities: language is the foundation of all our learning and the gateway to our social world. To others it seems a vague, amorphous discipline, lacking in objectivity and not encompassing a body of knowledge to be mastered. Indeed, the duality of these perceptions of English language arts is both virtue and vice:

> As an inherently ambiguous subject, which is less hierarchically organized than is math and encompasses a variety of subdomains, English may offer teachers greater freedom within the confines of the classroom. As it would be difficult, if not impossible, for teachers to cover all of the territory encompassed by the subject of English, teachers may necessarily select the purposes and areas they plan to emphasize in their classrooms. The inherent complexity of the subject, with its separate domains and subcomponents, may also offer teachers greater autonomy in developing curriculum. (Grossman, 1993, p. 7)

This ambiguity gives teachers tremendous freedom to exploit the "curriculum potential," in Ben-Peretz' (1975) phrase, of English language arts. The very ambiguity of the subject is attractive, particularly to proponents of whole language and process orientations, in that it seems to permit teachers to focus more clearly on the children they teach rather than on mastery of a body of knowledge. Teachers working in a developmental program of studies such as the Alberta program for language arts can teach concepts and skills using a wide variety of literature texts and resources appropriate for the interests and needs of students. However, this freedom places great demands on their knowledge of language texts, literature, and language (Grossman & Shulman, 1994) and leads, perhaps inevitably, to a sense of the impossibility of covering all domains.

In such a teaching context the teacher's understanding of a conceptual framework for teaching language arts and his or her perception of what is important for particular students' growth are critically important. With freedom and autonomy comes a tremendous responsibility. Of course, teachers are bound by restrictions in selection and use of curricular materials in all teaching contexts. In addition to provincial lists of approved resources, prag-

matic concerns such as school traditions, community expectations, and the inevitable "we have 30 copies of this novel in the book room" also shape curriculum choices. Although those pragmatics sometimes take on a life of their own in regulating teachers' choices, the fact remains that English language arts teachers face the exhilaration or bewilderment, depending on one's perspective, of freedom in relation to the provincial program of studies. Given such freedom, teachers may—and some do—see the presence of an external provincial examination as a useful standardizer, a benchmark to keep the teachers and the students on track.

Given such freedom and such responsibility, confidence matters. Although new teachers typically develop confidence with teaching experience, the development of such confidence is especially complex for teachers of English language arts. Their developing confidence in their teaching practices may be affected by their sense of proportion and propriety in language arts learning. The teachers in this study report their own growth in confidence, growth that is both cause and indication of their willingness to experiment with their structures, routines, and resources. They tend to note with pride that they do things differently with each class, not because of problems with the original plan, but out of a desire to stay fresh, to avoid burnout. The areas of language arts that they focus on vary according to their sensibilities and strengths. Each teacher seems almost to have a key word or phrase that repeats in conversation. Ellen, for example, encourages publication of her students' writing; the words *reflective* and *creative* crop up in Gwen's discussions of excellent student writing; and Jay speaks often of writing as intellectual engagement.

Gwen's development of confidence, however, is a tale of confidence supported, lost, and regained as she changed levels after three years of teaching. Beginning to teach at the junior high level, she engaged in the workshop approaches to reading and writing that she believed were most beneficial for students. She felt supported and affirmed in these approaches, with district inservices that provided useful strategies, and she considered several experienced colleagues as valuable role models. When she moved to the high school level, however, she suffered a crisis of confidence before ultimately regaining her equilibrium:

> When I first went into the high school, I felt a pressure to do mostly the essay writing, and I kind of followed along what other people were doing and there were comments to me like, "Are you even doing any essay writing?" So I felt really pressured. I guess in that respect it changed from junior high to high school.

> When I first started [in high school] I did very little creative writing and I think that really bothered me. I was very depressed and at that point really didn't know why. And I think this year, too, teaching English 30 for the first time I sort of followed what this one person was doing step-by-step, and then we would meet every week and "this is what we're going to do next." It was really stressful for me because it wasn't my style of teaching. And this person didn't use journals and didn't use a lot of the stuff, and yet I didn't want to do that on top of it because I thought this is going to stress the kids out because there's all this other stuff that she's doing and I didn't want to. I was sort of caught.

> I've shifted away from that now [with another group of 30s] and I'm doing my own thing, like with the poetry. It's a better situation now. There's ... much more reflective writing, more creative writing, even the essays—I try to do different things with how we approach the writing of the essay. More pre-writing and pre-reading activities, too ... I sort of came into my own way of doing things and being less worried about what other people are thinking. (Gwen)

This crisis of confidence seems caused by the pressures felt by experienced and less experienced teachers alike concerning the diploma exams. It clearly left Gwen more susceptible to teach according to the received wisdom of her colleague rather than to act on her beliefs. As discussed below, the specter of the provincial examinations drives the practices of the high school level teachers in this study in various and interesting ways.

Learning to Teach, Learning to Teach Writing

The contemporary orthodoxy for English language arts teachers rests on expanded and expansive conceptions of the uses of writing for learning. From the foundational work of theorists, researchers, and teacher-researchers such as Britton, Burgess, Martin, McLeod, and Rosen (1975), Murray (1985), Graves (1985), Atwell (1987), Romano (1987), Calkins (1994), and many others, leadership in the teaching community has developed visions of the teacher-as-writer and of process approaches in the attempt to teach writing "from the inside out," in Kirby, Liner, and Vinz', phrase (1988). Such conceptions of writing tend to stress personal development and exploration; development of individual voice in writing; and variety of forms, functions, and audiences (Halliday, 1970) to a greater degree than did earlier, more product-focused approaches to writing instruction. Students and teachers are encouraged to think of themselves as writers—to "live between the lines" (Calkins, 1991)—and to create a celebratory community of writers by sharing and supporting writing.

Such process orientations to the teaching of writing are obviously tremendously unpredictable in many ways: they foster exploration of emotions and revelation of the personal lives of students and teachers in ways that are not always comfortable even for experienced teachers. At the least, teachers who choose to engage in such process orientations must create safe and trusting environments if they hope to foster development of authentic student voices in written composition and to offer their own writing in membership in a class community of writers. Such an environment calls for tremendous coping qualities in teachers—their personalities are "on the line" at all times, both in terms of their sharing of authentic writing and of their responsibilities for the well-being of students in their classroom care.

As Courtland (1990) points out, in process approaches to written composition the teacher is the primary resource. When teachers share their own writing with students, these texts become artifacts that authenticate the teachers as authorities (in best sense of word) in their own eyes as well as in the eyes of students. In using their own writings, teachers make resources for present and future use with students. The acts and artifacts of writing contribute to their abilities to engage students in genuine writing. Nevertheless, this dual status as teacher and text poses particular dilemmas for formative-years teachers. In

these first years, teachers' personalities and identities are on the line on a minute-by-minute basis as they establish their authority and expertise as teachers. At a time when they are necessarily engaged in continual negotiation of identities as beginning teachers (Sumara & Luce-Kapler, 1996), teachers who foster communities of writers can be caught in a catch 22 of increased personal vulnerability. Needless to say, although this *author-ity* in the classroom can be a dramatic and fundamental strength, teachers need a certain courage to make the attempt.

Finding Time to Read and Write

One of the ironies of life as an English language arts teacher is that we are likely to be drawn to teach this subject because we love to read and/or write, but once hired we struggle to find time to engage in such literate behavior. All the participants in this study report a love of reading literature and writing; our conversations repeatedly show an "etiquette of reach" (Newkirk & McLure, 1996) as we stray into animated discussions of favorite literature. All also engage in some form or forms of *recreational* writing, a term I use for writing in any form that is done for the satisfaction of the writer, regardless of his or her intention to seek avenues of publication. They all struggle to find time to read and write for personal pleasure, with varying degrees of expectation and frustration. Four of the five identify themselves strongly with their writing; Carolann notes that she writes a form of personal journal "to keep me sane." Ellen and Jay, in particular, express great frustration that the activities that drew them to teach English language arts rather than another subject suffer from the demands of their teaching. Ellen, after a lengthy period of insecurity about her job, found solace that a lack of teaching contract would enable her to focus on her writing for a time at least:

> To tell the truth, I'm not sorry to have the time to rest a little, after a hard year last year.... It's the perfect chance to start a novel. I'm not exactly sure what my novel will be about. But I think ... the first is probably the hardest. Even if it turns out to be crap that no one would want to read, at least I would know that I am capable of the work. And I could try again. (Ellen)

The very qualities that contribute to their capabilities as teachers are those that suffer most from teaching. For formative-years teachers, such tension is another impediment to their integration of personal and professional, one more complication in the complex negotiation of identities. Indeed, Jay questioned whether to continue teaching even if offered a contract:

> I write poetry. Not as much since I started this job. I do a little bit of fiction writing at home. The odd story. That's one of the things that I find, there's sometimes where I really question if this is what I want to do with my life because there are times I just love it and there are times when I'm very frustrated by the lack of time I have to do things like read. I don't read very much except for what's for them [classes]. I try and keep a book with me all the time but the chance to get down to it is just—and I don't suppose that will change in other years. (Jay)

Writing With and for Students

Although the teachers in this study write for personal satisfaction, they do not all share this writing with students or use it for teaching purposes. The two

teachers with the most experience—Denise (7 years) and Gwen (6 years)—have followed different paths in addressing this tension of finding or making time to write for personal satisfaction. Denise reports that her responses on student papers, which she considers her personal writing because of her investment in thought and sensitivity, comprise most of the writing she manages during the school year. She speaks of her dissatisfaction that she has "fallen away" from doing more journal writing herself and with her students as she did in her first years of teaching.

As the participants characterize themselves and their own habits, it appears that it is Gwen who writes and uses her own writing the most in her teaching. She seems more comfortable than the others with the tension of finding enough time to write and using the writing to learn about the teaching of writing. In her modeling of her own writing processes, she attempts quite consciously to teach writing "from the inside out" (Kirby et al., 1988):

> I try to show them how my poems have developed from one stage to the next. Especially because I think they need to know how some people develop their poems. Some people can just write it out, but quite often I have paragraphs or a journal entry and then I take that idea and shape it into a poem. I get them to try that and circle strong images or words.

Carolann, who maintains a journal faithfully with early morning writing, also writes with her classes, emphasizing her desire to encourage students by joining in with them:

> If I'm telling them that they have to write poems, then I am going to share a poem with them that I've written, on the topic that I'm giving them.... I think it makes a big difference. Because then I'm part of it too. I'm not just the instructor up here telling them what to do, I'm participating.

She finds that her development as a writer guides her teaching in her attempts to promote students' abilities to break through their fear of making errors. As Shaughnessy (1977) found, errors and expectations often go hand in hand, and Carolann's consistent focus in teaching writing is to help bolster her students' confidence:

> That's one thing I tell my students—just sit down and go. You can always go back.... And I used to be like that too with—not a one-draft person, but I really wanted it to be good the first time. So I took a lot of care on that first draft. And now I'm a lot more, I don't go crazy, but I'm just a lot more reckless, I guess, with my writing the first time. And I encourage that in my students. It doesn't have to be, it's not going to be what you hand in the first time you do it. And I guess that's something I bring through doing more of my own writing. (Carolann)

Jay, with less teaching experience (2 years), distinguishes between his academic writing from university days, which he shares with his students for models of essays, and his poetry, which he does not reveal to students. However, he has crossed the line anonymously. One of his classroom routines is to write a short poem, verse, or quotation in a particular space on the blackboard each day. Students can choose to write journal responses to this quotation or may opt for their own topics. Jay has on occasion written lines from his own poetry for these quotations, but he does so anonymously, with interesting results:

> But I have slipped in a few of mine, a couple of times. There was one group of girls that I had in my 20 class. They sat right by there and they gave me the hardest time through the whole term. And they would always look and see what's up there [in the quotation space of the blackboard]. And they were actually writing down one of the poems I had up there. But I didn't tell them.... I just thought, if I put my name up there it would distort everything because they wouldn't be able to separate it from me. They wouldn't be able to be objective about it.

Writing Processes and Products in Provincial Examinations

For the four teachers at the high school level, discussions of their teaching practices and beliefs regarding written composition rest on their perceptions of the Alberta Education diploma examinations that their students write in grade 12. The three years of high school English language arts build for them to a culmination of essay writing for these diploma exams.

Alberta Education's English 30 and English 33 Examinations

The provincial examinations in English language arts currently include a multiple-choice reading section and a writing component. They are consistent with the two program streams for high school English language arts: English 30 is considered the more academic stream and English 33 is the general stream. The provincial exam scores count as 50% of the student's grade for the English 30 or 33 course, with the classroom teacher's grade comprising the other 50% of the final grade. A growing trend in recent years has been the publication of provincial examination results, not only for the diploma exams, but for the grades 3, 6, and 9 exams as well. Needless to say, particularly in rural communities, such publication of results in local newspapers, in school promotional materials, and in real estate marketing creates public judgments of schools and of individual teachers. In the eyes of many teachers, such publication of results, with the concomitant and seemingly inevitable pressure for increased results the following year, does not take into account the complexities of schooling or achievement, and does not reflect accurately on either their teaching practices or students' achievement.

The English 30 writing exam has two writing tasks: a minor (suggested 30 minutes writing time) and major (suggested 90 to 120 minutes writing time). The minor writing assignment is a reader's response to literature, and the major is a literature composition assignment. Each writing task is an essay prompted by a selection of literature. The two essays are linked by a common theme of the literature, with the more open-ended minor writing expected to serve as a springboard to the more literature-based major assignment. The English 33 exam includes three writing tasks: a personal response to literature (suggested 75 minutes writing time), a functional writing task (suggested 45 minutes writing time), and a written response to visual communication (suggested 30 minutes writing time).

Living with the Examinations

The pervasiveness of the teachers' focus on the diploma exams has reminded me at times of the anecdote of the woman who informed Buckminster Fuller that the world rests upon the back of a large turtle. When he asked what the turtle rests on, she replied, "An even bigger turtle." "And what does that turtle

rest upon?" "It's no use, Mr. Fuller," she announced, "It's turtles all the way down!" In teaching high school English language arts courses, the danger is the potential for seeing diploma exams "all the way down."

External examinations, a source of heightened tension for many teachers in a contemporary context of increased public scrutiny and expectations for ever-increasing scores, are especially problematic for English language arts teachers, whose subject area provides for such flexibility and autonomy. Appropriately, given the developmental nature of the Alberta program of studies, the exams attempt to test students' abilities to meet new tasks in reading and writing rather than to work with a preset body of knowledge: a particular work of literature is not the content to be learned and it is not tested on the exam. Students are expected to respond to unfamiliar passages of literature and writing prompts. In writing, students are expected to organize thoughts appropriately, marshall details to support their main points, use conventions of written English appropriately for their grade levels, and express themselves sensibly and coherently. These are reasonable expectations of achievement for which Denise, like many of her colleagues, considers the marking standards to be high:

> And unfortunately, and I hate to say it, but there is a Diploma 30 exam at the end ... [that] asks them to do superior essay writing. I've marked diploma exams and I can't believe how high the expectations are. And I think sometimes we forget these are 17-year-old kids. (Denise)

The Alberta examinations call for time-limited written products on a narrow range of writing tasks. Although the exam is not intended to test the full breadth of the program of studies, the increasing prevalence of and emphasis on standardized assessment in written composition can narrow the teaching focus to the tested forms. Clearly it is a difficult task to develop a time-limited exam that respects writing processes as we encourage teachers to teach children. Attempts are being made to make standardized external examinations in English language arts more consistent with our understanding of writing processes. Such efforts include the use of two genres of writing tasks, on the understanding that the quality of writing varies with the writer's interest in and experience of form; the inclusion of time for prewriting talk in small groups; and encouragement of webbing and other planning strategies. However, the examination remains an artificial exercise and source of stress for many teachers.

> And then there was a meeting at which we were told that we were expected to raise the kids' diploma scores by 5% a year. When I was at that meeting I was quite shocked, but then later when I thought about it, I thought, well, perhaps this is why I've felt so down this year, too, is the pressure that's being put on us. (Gwen)

The pressures of accountability and increased test scores can impede teachers' professional growth. Callahan (1997), writing about state assessment in Kentucky, indicated that the stress of increased teacher accountability and pressure for higher test scores effectively thwarted another goal of the assessment process—encouraging teachers to reinvigorate their practices by talking

about their teaching methods. The teachers in Callahan's study focused exclusively on accountability without consideration of their teaching methods.

Gwen, Carolann, Denise, and Jay feel the pressure to help students perform well on the diploma exams, a pressure that resonates in their teaching. Gwen's crisis of confidence came at her move to the high school level, when she felt that the practices and beliefs with which she had had success and support at the junior high level were somehow not valued in senior high. This insecurity led her to accept, temporarily, practices to which she did not subscribe. After a period of dissatisfaction with her teaching, her confidence rebounded and she found role models among experienced high school teachers whose practices accorded better with her beliefs:

> If you're going to teach to the exam, you're not going to build a well-rounded student who thinks independently and who can respond in various ways, you know. I think the written part probably is a good exam; I like the exam, but I think too many people gear their whole year to the essay writing. There's lots of factors, lots of things you could do for them to be successful on that exam that don't necessarily have to be exam writing practice for the whole year. And I just realized that this year, half way through the year. (Gwen)

In conversations with Carolann and Denise there is an almost palpable sense of writing as a terrifying activity for students as a consequence of the essays of the diploma exam. This fear may be shared by teachers as they take on the burden of preparing students for the exams. Although teachers at the grades 3, 6, and 9 levels also feel increased pressure and public scrutiny, the grade 12 teachers are the last chance: if a student fails, the failure has immediate repercussions for the student—and perhaps for the teacher. Despite the limited range of the program of studies tested in the diploma examinations (e.g., the speaking and listening strands are omitted), teachers are aware when their marks for a student are significantly out of line with the student's exam score:

> I did feel badly, though, because two kids on their Diplomas scored significantly higher than I was giving them on their written assignments, and again, I question whether or not I was marking too difficult, or maybe that topic just clicked with them. There are so many variables. I really don't know what happened there. I think it was a difference of 20%. That's a lot. (Gwen)

Carolann and Denise teach in quite different contexts: Carolann teaches adults, many of whom have failed or dropped out of high school in the past, or who speak and write English as a second language. Denise teaches at an urban high school considered to be highly academic. Yet both speak movingly of the fears of their students:

> They're afraid ... because you have to write an essay on your diploma exam. And if you can't write an essay you'll fail the diploma exam and then your life is over and you can't graduate high school—you know, it's hammered into them. And they fear it.... My very best student in 20 last year—she wrote well, she was so articulate and insightful and creative, and she didn't write the exam. She just didn't show up that day. And she could have aced it. She just didn't have the confidence. (Carolann)

> I go right back to the beginning of essay writing and I do it in almost a cookbook kind of fashion because they're very uncomfortable with the idea of the word *essay*. They become frightened of it. (Denise)

For both of these teachers, a primary goal with their classes is to allay fears and build students' confidence about writing the exam. Both teachers explicitly discuss breaking writing down into "small steps" and "manageable bits," focusing first on sentence structures and working up to paragraphs and finally to essays. Both begin with English 10s and 13s to work toward the ultimate goal of writing the English 30 or 33 exam. Both teachers identify the biggest changes in their teaching practices as their efforts to be more specific, to provide students with step-by-step procedures for essay writing. With English 20s, Carolann begins with personal writing and gradually works toward essays, first leading students from personal essays to essays about literature.

> So I really backed up and I've really gone back to the basics and started slow and just small stuff, like baby steps forward. Baby steps, whereas before I used to take these giant leaps. I think that was just finding my own fit too. And coming to understand the students and what they needed. (Carolann)

Jay and Gwen both speak extensively about student engagement with the thinking involved in their writing; Jay focuses on the intellectual engagement, and Gwen often discusses the creative, reflective engagement of students with writing. These two teachers attach considerable weight to a variety of forms of writing, and they consider that students learn to write essays well by writing in other forms as well.

> And I try and convince them that writing is a way of learning about these things. And it is important, the more you understand other people, the more you understand yourself. (Jay)

> And then I have them quite often ... write down what have been the four or five major changes that you've made, and why you made them, and what the result was. And I find that a very reflective piece too, they really have to think about it. And it also shows me the difference between that peer editing sheet where their partner has written down all these comments and what they've actually chosen to take away from that. Some people, it's interesting. I tell them they have to provide reasons for why they didn't choose that suggestion and not just say, "Well, you know, it wasn't any good." Well, why wasn't it any good, or why did you not [take the idea]? ... So that way they have this freedom to do that, but they have to think about why they're doing what they're doing in terms of the process. (Gwen)

Conclusion: Being and Becoming

As these teachers continue to gain experience and teach more of the courses of the secondary language arts program in Alberta, they will undoubtedly continue to explore new ways of working with their students. Although this study has a small number of participants, their developing practices and beliefs, while responsive to their individual contexts, nevertheless suggest implications for professional development for practicing teachers, for teacher education, and for students and their written compositions.

The tension of finding balance in personal and professional lives, particularly with regard to finding time to read and write is virtually unresolvable, as are

most questions of finding time or making time. However, it should first be noted that, orthodoxy notwithstanding, not all English language arts teachers are avid readers or writers. Some use their summer times to catch up and accept as inevitable that the demands of teaching during the school year preclude this pleasure. Others, however, would be unhappy living with this deferred indulgence, as reading and writing are integral aspects of their daily lives. For those who take seriously the dictum that teachers of writing ought to be writers themselves (Murray, 1985), the irony is that to the extent that they subscribe to this dictum, they may increase the tension of juggling time to teach and time to write.

Some of this tension may be resolved in the interweaving of the writing and teaching. Gwen, using her own writing fairly extensively as a teaching resource, seems more comfortable with the difficulties of making time to write. Gwen has the advantage of more years of teaching experience than Jay, who uses his academic writing pedagogically but uses his poetry surreptitiously in his teaching. In this anonymous inclusion of his poetry he cannot exploit its value as a teaching resource to model process and decision-making in writing. It will be interesting to see how Jay works in this tension in the coming years.

In light of the increasing public pressure on teachers to help students score higher on external examinations, we will need to examine closely the practices they employ to this end. In teacher education and continuing professional development, we will need to demythologize the external examinations both for teachers and for the public so that students, teachers, and the public can better understand their potential uses and limitations. When teachers like Carolann and Denise, who teach in widely different circumstances with regard to student population, both speak movingly of their students' fears of the provincial examination, we must realize that those fears do not originate solely with these students. There is a danger of responding to these fears, among students and educators, by unintentionally defining writing more narrowly than is intended in the program of studies or indeed in any sensible estimation of the demands our students will face in written composition in their future work and domestic lives. As Callahan (1997) argues, explorations and improvement of pedagogical practices are casualties of overemphasis on increased scores on external testing.

By focusing attention on the developing practices of teachers in their formative years, teacher educators and district personnel interested in teachers' professional growth can attend to the tensions, ambiguities, and possible contradictions of current theories and practices in education. These formative-years teachers of written composition live constantly between the lines of personal and professional tensions, between their perceptions of how they were taught to teach and how they find themselves teaching, between the lines of conflicting expectations. As teachers of writing who are writers themselves, they also attempt to live in the lines of their own and their students' writing.

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Everyday Scientific Literacy: Do Students Use Information About the Social Context and Methods of Research to Evaluate News Briefs About Science?

Skill in evaluating media reports about science is an important aspect of scientific literacy for citizens in the 21st century. To identify the kinds of information individuals used to evaluate media reports about science, university students were asked to judge the credibility of specially constructed news briefs and to justify their judgments. Credibility ratings were influenced by the area of research, the plausibility of the conclusions, and information about the quality of research methods. Information related to the social context of the research had no effect, despite its importance for evaluating conclusions reported in news briefs. Students used a variety of criteria for justifying their judgments, including the information provided in the reports, prior knowledge, and prior belief. Implications for defining and assessing scientific literacy are discussed.

L'habileté d'évaluer les rapports des médias sur la science constitue un aspect important de la littérature scientifique pour les citoyens et les citoyennes du 21e siècle. Afin d'identifier le genre de renseignements dont font usage les individus dans l'évaluation de la couverture par les médias de la science, on a demandé à des étudiants et des étudiantes de l'université de juger la crédibilité d'un bulletin de nouvelles spécialement confectionné et de justifier leur jugement. Les indices de crédibilité furent influencés par le domaine de la recherche, la plausibilité des conclusions, et les renseignements relatifs à la qualité des méthodes de la recherche. L'information ayant rapport au contexte social de la recherche n'a eu aucun effet malgré son importance dans l'évaluation des conclusions rapportées dans les bulletins de nouvelles. Les étudiants et les étudiantes ont fait usage d'une variété de critères pour justifier leurs jugements, incluant l'information provenant des rapports, des connaissances et des croyances antérieures. On discute les implications pour définir et évaluer la littérature scientifique.

Science educators and researchers generally agree that the goal of contemporary science education is to produce scientifically literate citizens. An evaluation of scientific findings can influence personal, professional, and public

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policy decisions. Citizens in a democratic culture need to be able to contribute to policy debates about such topics as storage of toxic waste, energy conservation, acid rain, or greenhouse gases. Furthermore, when formal education is completed, a major source of new scientific information available to citizens is likely to be the media—print, radio, and television (Elliott & Rosenberg, 1987; Mallow, 1991; Norris & Phillips, 1994; Tannenbaum, 1963; Wellington, 1991). Even those citizens who pursue careers in science or technology cannot follow the primary literature for all areas of scientific research (Bauer, 1992; Shamos, 1995). Therefore, we can assume that both scientists and nonscientists often first hear about *new* scientific research from the popular media. As a result, skill in evaluating media reports can be considered part of the collection of skills necessary to be a scientifically literate citizen (Korpan, Bisanz, Bisanz, & Henderson, 1997; Miller, 1983; Prewitt, 1983; Science Council of Canada, 1984).

The goals of this research were twofold. The first was to develop a new method for studying whether individuals use various types of information when evaluating the credibility of brief media reports about scientific research. The second goal was to determine whether the inclusion of two types of information in news briefs affects judgments of credibility. Specifically, we were interested in the effects of information about scientific culture and practice.

Definitions and Methods of Assessment

Although there are several definitions of scientific literacy, most have three elements in common: (a) an understanding of basic scientific facts, concepts, and processes; (b) an understanding of the methods and procedures of scientific investigation; and (c) an understanding of and appreciation for the connections among science, technology, and society (Aikenhead, 1989; Baker & Piburn, 1991; Champagne & Newell, 1992; DeBoar, 1991; Fleming, 1988; Glynn & Muth, 1994; Hawkins & Pea, 1987; Jenkins, 1990; Miller, 1983; Mitman, Mergendoller, Marchman, & Packer, 1987; Ryan & Aikenhead, 1992; Yager & Tamir, 1993). Despite the breadth of this definition, the most common means of assessing literacy in science has relied on factual recall. More specifically, most measures of scientific literacy rely on recall of scientific concepts such as DNA, cells, atoms, radiation, and gravity (Miller, 1983).

Shamos (1995) argued that assessing factual knowledge is both simple and straightforward, but that a collection of facts is not the essence of science. Facts, whether they be about science, history, mathematics, or literature, are soon forgotten if they are not used. Shamos advocates strongly that scientific literacy needs to be redefined: "The science education community keeps insisting that the public conform to the *traditional* meaning of scientific literacy, that is, to knowing some 'textbook' science instead of sharply redefining such literacy to conform with the true public need" (p. 231). Testing specific course content may not be the best way of assessing scientific literacy, especially among adults in the work force (Campbell, 1997; Shamos, 1995). For these adults a major source of new information about science is the popular media. Thus developing skill in reading and critically evaluating reports of research meets a public need. This skill requires all three elements of the previous definition and is

therefore a valuable capstone index of scientific literacy (Norris & Phillips, 1994).

Reading Media Reports About Science

Mallow (1991) analyzed the content and structure of various types of science writing, including popular reports, specialized science publications, and textbooks. Textbook writers typically cover fundamental scientific facts and processes, serving as a guide for learning basic concepts that need to be mastered as part of an educational objective. In contrast, newspaper reporters who cover science are responsible for communicating recent scientific findings as well as findings that relate to and inform public policy. Typically, the subject matter of media reports is cutting-edge or *frontier* science, not the uncontroversial and established knowledge that is the subject of textbooks (Bauer, 1992). Media reports are often brief and necessarily incomplete. Because of space limitations, only selected features of the research can be provided (e.g., the name of the investigators, the name of the journal where the research was published, the number of participants, Zimmerman, Bisanz, Bisanz, Klein, & Klein, 1998). Critical evaluation may or may not be necessary for dealing with the information in science textbooks, but it is crucial when dealing with the new scientific findings that affect decisions about personal or policy matters. Little research has been conducted on how people read reports of science in the media despite the importance of this skill.

Norris and Phillips (1994) argued that authors of popular reports present science in a way that should be interpretable by nonscientists, but that it may not be a type of text with which students are familiar. Norris and Phillips found that grade 12 students had difficulty interpreting the pragmatic meaning of popular reports about science. Students tended to be more certain of the scientific status of the reported findings than of the author of the article. They also had a tendency to confuse statements about evidence and statements that were drawn on the basis of evidence. In short, grade 12 students with solid backgrounds in science had not yet mastered the fundamental skills necessary to interpret popular reports of scientific research. Because actual reports from the media were used, these were materials that could not be controlled with respect to length, content, reading level, or number of idea units or propositions. The lack of controlled text does not allow inferences about the type of information (present or absent) in the reports that contributed to students' "faulty" interpretations.

Another approach, focused on media reports as a vehicle for investigating how people think critically about scientific research, is the request or *question-generation method* (Bisanz, Bisanz, Korpan, & Henderson, 1994; Korpan et al., 1997; Korpan, Bisanz, & Bisanz, 1994). One of the skills necessary for the evaluation of scientific research is the ability to ask relevant questions in order to assess the credibility of a research conclusion. In these studies students in university and in grades 7, 9, and 11 were shown concise, media-style news briefs that included a conclusion based on fictitious research. Participants were asked to request information that they would need in order to ascertain the credibility of the conclusion.

These researchers (Korpan et al., 1997; Bisanz et al., 1994) were interested in the *features* of scientific research that people consider important for evaluating the conclusions of a research report. Korpan et al. (1994) developed an extensive taxonomy to classify both the *topic* of the questions and the *knowledge domain* of the justifications. The categories in the taxonomy are hierarchical, with categories going from general to specific. The nine broad categories for the topic codes section are shown in Table 1. Within each of these categories information becomes more specific. For example, within the Method category is the topic Subjects, and within Subjects is the topic Number of Subjects Tested. This taxonomy is intended to represent a superset of all potential features of research that could be generated by individuals and that might be important for the evaluation of a research conclusion.

Two main findings from the question-generation studies are of interest. First, most types of questions that were generated varied as a function of age (Bisanz, Bisanz, Korpan, & Henderson, 1995) and university major (English versus psychology, Korpan et al., 1994). Questions about causal explanations, however, were frequent and fairly stable for participants at all education levels. Requests for information about methods and data increased as a function of grade (7, 9, and 11, Bisanz et al., 1995) and year in university (first and fourth year, Korpan et al., 1994). Compared with questions about methodology, questions about *social context* such as the training and qualifications of the researchers or where the research was published were asked less frequently and consistently for both secondary and university students. However, fourth-year undergraduate majors were somewhat more sensitive to the communal nature of science. Specifically, they asked more questions about social context than first-year undergraduates (Korpan et al., 1994).

A second finding was that certain dimensions of the news briefs influenced the questions participants generated. The *plausibility* of the research conclusion was found to have an effect on the type and number of questions generated. Reports that had less plausible conclusions prompted questions about the theory or underlying mechanism, whereas more plausible reports provoked questions about method. *Typicality*, or the relation of the reported phenomenon

Table 1
Topic Code Categories from the Korpan et al. (1994) Taxonomy

Topic Code	*Includes information about:*
Social Context	Credentials, motivation of researchers and people associated with the research, publication outlets, or funding sources.
Agent/Theory	Agent or treatment involved in the research (information about how it works).
Method	Information about how the research was conducted including design, subjects, procedures, and replicability.
Data/Statistics	The data collected, comparative nature of data and analyses.
Related Research	Reference to other reported findings.
Relevance	Importance, applicability, or generalizability of the research finding or the impact of the research.
Other	Relevant but not covered above.

to the sciences typically taught in school (e.g., physics, chemistry, biology), also influenced requests for information. Reports about more typical phenomena elicited more questions about the cause (Agent/Theory), whereas less typical stories prompted students to ask questions about measures. The combination of typicality and plausibility also affected the type of questions asked by subjects. For example, reports that were low in both typicality and plausibility prompted students to request information about the researchers' credentials.

In summary, different topics related to plausibility and typicality elicited different types of questions from students. Age and training also had an effect on the type of questions that were asked. Use of the generation method has been successful in ascertaining the types of features of scientific research that subjects know about and generate spontaneously.

Report-Evaluation Method

Individual performance on the question-generation task may not adequately reflect all one knows about the various aspects of conducting scientific research. This task requires that participants spontaneously generate or *recall* features of research. Our research is an attempt to determine whether subjects *recognize* features of research as being useful for evaluating the credibility of research reports. The idea that recognition is less demanding than recall is generally accepted in cognitive psychology (Bahrick, Bahrick, & Willinger, 1975; Shepard, 1967). The task developed and used in our study is loosely based on the logic of the functional measurement approach (Anderson & Cuneo, 1978; Surber, 1984, 1987). In this approach, tasks are constructed that require the individual to consider multiple sources of information in order to make different types of judgments. In this research several types of information were included in brief, media-style reports. In particular, details about *quality of social context* and *quality of methods* were incorporated into the reports to determine whether these types of information are used when students make judgments about credibility. News briefs also varied systematically with respect to typicality and plausibility. Finally, individuals were asked to provide written justifications for their judgments. In this task written justifications can provide information about whether various types of prior knowledge, dimensions, and features of the text, or both, influenced judgments.

Social context and scientific methods. Mallow's (1991) analysis of popular press articles revealed that authors often omit information about methods and procedures in favor of information about who conducted the study and the practical applications of the research. Media reports commonly contain details about the social context of research such as the researcher's credentials, the source of funding, the publication outlet, or the institute or university affiliated with the research (Einsiedel, 1992; Zimmerman et al., 1998). These features could affect judgments about the quality or validity of the research. These features are also among those that researchers use to judge the quality of their colleagues' work (Shadish, 1989).

Norris (1995, 1997) provided an additional rationale for examining how people evaluate the social context features of reported research. He suggested that the communal nature of science has profound implications for understanding science. Within the community, scientists themselves rely on the

expertise of other scientists in their field for aspects of their knowledge. As well, he asserted that "Nonscientists' belief or disbelief in scientific propositions is not based on direct evidence for or against those propositions but, rather, on reasons for believing or disbelieving the scientists who assert them" (Norris, 1995, p. 214). Because of this interdependence scientists and nonscientists alike must be able to make judgments about aspects of the researcher such as qualifications, honesty, and conflict of interest (Hardwig, 1991; Siegel, 1988).

Although social context cues may influence judgments of quality or credibility, information about the appropriateness of the scientific methods employed is probably the most critical determinant of the credibility of a research conclusion. Although popular press articles contain minimal methodological information (Mallow, 1991), it is important to determine whether students are sensitive to this type of information when it is present and use it when making critical evaluations. A commitment to "the scientific method" is one of the defining features of conducting scientific research. Knowledge about the various processes and methods of science is also a hallmark of a scientifically literate person. In addition, learning the methods of science is a core component in most science curricula. Gray and Mill (1990) found, however, that graduate students needed several cues before noticing that crucial information about control groups was missing when reading abstracts of research. Their research was limited to one methodological feature (i.e., the presence/absence of control groups). Further research is needed to determine whether students have adequate knowledge of the variety of methods used in scientific inquiry and if they can respond to cues about the quality of scientific methods.

Typicality and plausibility. Typicality and plausibility influenced the number and type of questions generated by students (Korpan et al., 1997). Because these dimensions had a systematic effect on evaluation, they are important to consider in designing any subsequent research about reading in science. There are two further reasons for including these factors in the present work. First, a variety of scientific topics are reported in the media. In addition to research related to the natural and physical science studied in school, research related to medicine, health, and the social sciences is also commonly covered in the print media (Einsiedel, 1992; Wellington, 1991; Zimmerman et al., 1998). Thus it becomes important to know how the typicality of topics covered in news briefs affects credibility judgments. Second, plausibility is of interest because numerous examples of scientific phenomena may seem implausible or counterintuitive if we simply appeal to common sense (Wolpert, 1993). For example, hyperactive children are often treated with amphetamines (Swanson, McBurnett, Christian, & Wigal, 1995). Students may have learned through their science education that science is not always a straightforward or intuitive endeavor.

Our study was designed to assess university students' knowledge about particular aspects of the scientific enterprise using the report-evaluation method. Brief reports were selected because they are pervasive. News briefs represented 60% and 74% of samples of science writing in the popular press in studies by Einsiedel (1992) and Zimmerman et al. (1998) respectively. The quality of information in brief reports was manipulated in order to determine which types of information students recognize and use when critically evaluat-

ing conclusions based on research findings. We were interested in determining the answers to several questions. First, typicality and plausibility were text dimensions that influenced the type of questions students generated about brief reports (Korpan et al., 1997), but do they influence credibility judgments? Second, do students recognize and use the quality of information provided about social context and method when producing credibility judgments and justifications? Third, to what extent do students' justifications for credibility judgments rely on various types of information provided in the news briefs, prior knowledge, or both?

Method

Participants

One hundred, twenty-eight university students in an introductory psychology course participated for course credit. The median age was 19.4 years (range 17.8-48.5).

Materials

Sixteen news briefs were constructed that varied in plausibility, typicality, quality of social context information, and quality of methodological information. Examples are provided in Appendix A. Plausibility refers to whether the reported conclusion is consistent with personal knowledge (Posner, Strike, Hewson, & Gertzog, 1982). Typicality refers to the relation of the reported phenomenon to sciences typically taught in school (e.g., physics, chemistry, and biology). Four topics were selected that varied in plausibility and typicality as rated by university students (Korpan et al., 1994): pesticides (high plausibility, high typicality); meditation (high plausibility, low typicality); gasoline additive (low plausibility, high typicality); and dream crystal (low plausibility, low typicality).

The selection of features related to social context and methodology was based on a survey of news briefs and on several magazine articles about how consumers should read media reports (e.g., "Headlines on the Hot Seat," 1996; "Scientific Studies," 1995; Zimmerman et al., 1998). Information about social context included details about the researcher, the location of the research, the publication outlet, and the source of funding. Information about methodology included details about duration, control group, number of subjects, and the extent to which subjects are representative of the population in question. News briefs were written so that details about each of these variables were indicative of high- or low-quality research (see Table 2). For example, the number of subjects in a study (e.g., birds in a study about the effects of a pesticide) could be reported as small or large. In most cases a larger number of subjects enables a higher degree of confidence in generalizations made on the basis of data and thus is a probable characteristic of high-quality research. For each topic and informational variable the indicators of high- and low-quality research were obtained by interviewing experts in related domains (e.g., chemical engineers for the news brief about gasoline additives).

Design and Procedure

Because of the demands of the task, each student read and evaluated only four of the 16 news briefs. To provide students with the full range of topics,

Table 2
Low and High Quality Information about Social Context and Method

Generic Feature	*Quality of Information*	
	Low	*High*
Researcher	a scientist	a well-known research team
Location	private research facility	major university
Funding Source	provincial grant	federal research council grant
Publication Outlet	conference presentation	reputable research journal
Control Group	no control group	control group information
Number	small # of "subjects"	large # of "subjects"
Duration	short duration of study	longer duration of study
Representativeness	low representative sample	highly representative sample

typicality and plausibility varied within subjects, and social context and method varied between subjects. For example, a given student would read and evaluate four news briefs representing all four combinations of plausibility and typicality (corresponding to each of the four topics; see Appendix A) but representing only one of the four combinations of social context and method (e.g., all four news briefs could have high-quality social context information and high-quality methodological information). Sets of four stories were constructed so that social context information, methodological information, and order of topics were counterbalanced across subjects. Students were tested in groups of 5 to 20. Each subject was given a test booklet and instructed to read each news brief. After each brief, subjects were presented with the written question "How would you rate the [first] research report in terms of the credibility of the underlined conclusion?" and a 7-point scale (1 = not very credible, 7 = highly credible). They were then asked to provide a brief written justification for the credibility rating (i.e., "Please write a few sentences to justify the rating that you gave the research report"). Students were allowed to

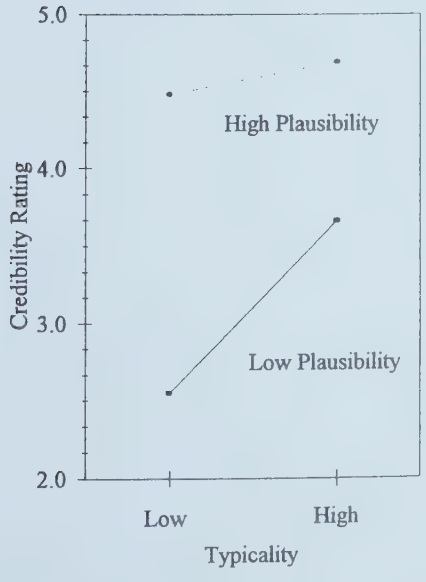


Figure 1. Mean credibility ratings as a function of typicality and plausibility.

work at their own pace and generally took 20 to 40 minutes to complete the task.

Results and Discussion

Credibility Ratings

A 2 (Sex) x 2 (Social Context: high vs. low) x 2 (Method: high vs. low) x 2 (Typicality: high vs. low) x 2 (Plausibility: high vs. low) ANOVA with repeated measures on the last two variables was used to analyze credibility ratings. The mean credibility rating was greater for high-typicality news briefs (4.17) than for low-typicality news briefs (3.52), $F(1,120) = 30.99$, $MS_e = 1.76$, $p<.001$, and greater for high-plausibility news briefs (4.59) than for low-plausibility news briefs (3.1), $F(1,120) = 129.63$, $MS_e = 2.16$, $p<.001$. Moreover, these two variables interacted, $F(1,120) = 16.51$, $MS_e = 1.56$, $p<.001$. As can be seen in Figure 1, the effect of typicality was larger for low-plausibility news briefs (3.66 vs. 2.55, $p<.01$) than for high-plausibility news briefs (4.69 vs. 4.48, $p>.05$).

Thus counterintuitive findings were found to be more credible if they occurred in the context of the natural and physical sciences typically taught in school. This interaction was expected based on previous work with similar stimuli and the question-generation task (Korpan et al., 1997). Because of instruction in domains like chemistry, individuals may recall other instances of counterintuitive results. For example, the elements sodium and chlorine are highly toxic, and yet they combine to form table salt. An individual who is aware that science is often at odds with "common sense" might believe that a poisonous chemical could be added to gasoline to reduce pollutants (the low-plausibility, high-typicality news brief). A competing and perhaps additional factor in the case of the dream crystal news brief (low plausibility, low typicality) is that some students may have viewed the subject matter as being outside the bounds of scientific investigation altogether.

The analysis revealed no effect of social context and only a marginal effect of method ($p<.10$). However, method and typicality interacted, $F(1,120) = 14.19$, $MS_e = 1.76$, $p<.001$ (see Figure 2). When the quality of the methodological information was low, the mean credibility rating for low-typicality news briefs did not differ from the high-typicality news briefs. With high-quality methods, however, mean credibility ratings were greater for high-typicality news briefs

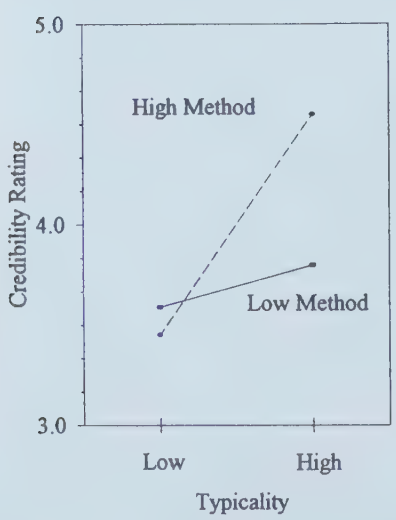


Figure 2. Mean credibility ratings as a function of typicality and method.

than for low-typicality news briefs, $p<.05$. Perhaps students were more familiar with the methods typically used in the natural and physical sciences represented in the science curriculum than the methods relevant to the low-typicality news briefs. They may have noticed the methodological information in the low-typicality news briefs, but because of a relative lack of instruction, their knowledge may have been insufficient to evaluate whether the information was of high or low quality. The tenability of this hypothesis is addressed in our discussion of the justification data.[1]

Written Justifications

The justifications that students provided were coded with the Korpan et al. (1994) taxonomy for classifying knowledge about scientific research (see Table 1). On average there were 1.85 justifications per rating (range: 1-6). Justifications were assigned both a taxonomy code for content and a valence code (i.e., whether the comment was positive or negative). We provide a general picture of the valence and types of justifications, and then focus on aspects of these data that facilitate interpretation of credibility judgments. We focus on justifications referring to social context and method because the quality of these types of information was manipulated in the news briefs. Finally, we describe a somewhat unexpected finding, namely, the surprising number of students providing justifications that appealed to prior beliefs.

Valence and type of justifications. Students tended to make negative evaluative comments in their justifications. For the four news brief topics (dream crystal, meditation, gasoline additive, pesticide) the percentage of negative codes was 91%, 67%, 69%, and 64% respectively. Samples of both positive and negative comments appear in Appendix B.

Table 3 shows the percentage of students who used each type of justification. The second column lists the percentage of students whose justifications were coded as a particular taxonomic code for any of the four news briefs. This information presumably reflects the degree to which a feature is available to students. The third column lists the percentage of students who referred to a

Table 3
Percentage of Students with Justifications Coded as Various Topics for Any or All of the News Briefs

Topic	*Any*[a]	*All*[b]
Social Context	37.5	3.1
Method	86.7	33.6
Agent/Theory	47.7	0
Data/Statistics	18.8	2.3
Related Research	7.1	0.8
Relevance	7.8	0
Believe/Do Not Believe	53.1	3.1

[a] Percentage of students with at least one justification coded as a particular topic for any of the four news briefs.
[b] Percentage of students with at least one justification coded as a particular topic for all four of the news briefs.

particular topic for all four news briefs. This information presumably reflects how salient a feature is across content areas. As is evident in Table 3 methodological information was by far the most available and the most salient topic for justifications. Many types of information were available to students, but not used consistently. For example, almost half the students referred to the particular agent that was under investigation for at least one of the news briefs, but no one used this type of justification for all four news briefs. Some students commented on related research, showing knowledge that a single study contributes to a body of existing findings. Although not appropriate for judgments of credibility, some also considered the relevance of the research, indicating sensitivity to the practical application of research findings.

Social context justifications. Recall that the quality of social context information did not affect students' credibility judgments. An initial explanation might be that university students were not aware that such information could be used in the assessment of the news briefs. However, over a third of the students mentioned social context information as part justification for at least one of their credibility ratings (see examples in Appendix B). Remarks such as these provide evidence that students do not completely disregard the information provided about social context. Compared with methodological information, however, information about social context is less available and less salient. This difference may account for the lack of an effect on credibility ratings, at least under conditions where other sources of information such as typicality, plausibility, and quality of methods are present in news briefs.

Method justifications. Recall that in the analysis of credibility ratings, method interacted with typicality (see Figure 2). Based on the credibility judgments, it appears that students recognize and use the information about quality of methods only in the case of topics that are typical of the sciences covered in the high school curriculum. One possible explanation for this finding is that students may not be aware of what constitutes good or appropriate methods in the less typical sciences. However, the justification data do not support this explanation. In the case of less typical topics, students had a tendency to comment on methodological information that was inadequate or even missing from both high- and low-quality versions of the news briefs. For example, 29% of students mentioned potential subject bias in either of the low-typicality news briefs (e.g., "This conclusion does not take into consideration expectancy bias" and "Seniors could expect to feel better and therefore do"). Negative evaluative comments about measures used with human subjects were made by 26% of the students for either of the low-typicality news briefs (e.g., "Sense of well-being was not even defined" and "How do you really measure or know what someone is dreaming?"). Only 5% of the students mentioned both subject bias and measures. Thus half the students noticed at least one potential methodological flaw in either of the low-typicality news briefs.

In contrast, students restricted their comments to features reported in the high-typicality news briefs without mentioning other methodological features they may have known. Furthermore, their credibility ratings mirrored the high- and low-quality versions provided by the experts (recall that the specific methodological details were provided by university researchers working in areas similar to those in the news briefs). In general students were less skeptical and

more reliant on the given information in the news brief when it came to evaluating the methodological features and details for the high-typicality news briefs. These differences presumably contributed to the interaction.

Belief justifications. A somewhat surprising finding was the number of justifications that were simple statements about a belief or disbelief in the conclusion of the news brief (see Appendix B). This category does not exist in the Korpan et al. (1994) taxonomy and had to be created to code students' justifications. Over half the students cited belief or disbelief as part of their justification for the credibility rating for at least one of the news briefs (see Table 3). When typicality was high, students rarely found statements about belief to be necessary (see Table 4), perhaps because the more established sciences carry sufficient weight to override biases based on personal beliefs. When typicality was low, however, students were more likely to invoke personal beliefs, and the valence of their beliefs corresponded to the plausibility of the conclusions.

This finding that students often cite personal beliefs in their justifications is noteworthy for two reasons. First, the pattern of responses in the present study (Table 3) is somewhat discrepant from that obtained by Korpan et al. (1997). Frequent reference to prior belief raises the question of whether particular types of information might have been more available or salient had students focused only on information within the news brief or prior knowledge about scientific research. The nature of the question-generation task used by Korpan et al. (1997) does not allow individuals the opportunity to mention prior beliefs, because they are requesting information in order to evaluate the tenability of the research conclusion. Second, the fact that a number of students may have made a credibility judgment based on prior belief emphasizes the importance of studying the conditions under which individuals engage their critical thinking skills when examining the specific content of news briefs. As recognized in the new Pan-Canadian framework of learning outcomes for primary and secondary science education (Council of Ministers of Education, Canada, 1997), at the broadest level scientific literacy is more than knowledge and skills—it also involves attitudes and the disposition to use knowledge and skills in personal decisions and public discourse about science.

General Discussion

We argue that the evaluation of new scientific findings is an important skill for a scientifically literate citizenry. Kyle (1995b) asserted that scientific literacy

Table 4
Percentage of Students with Justifications Coded as Belief Statements by Topic

Topic	*Believe*	*Do Not Believe*
Dream Crystal (Low Typicality, Low Plausibility)	3	30
Meditation (Low Typicality, High Plausibility)	25	3
Gasoline Additive (High Typicality, Low Plausibility)	7	8
Pesticide (High Typicality, High Plausibility)	10	<1

Note. Percentages are based on a sample of 128 students.

"must be meaningful, it must be applicable to students' daily lives, and it must enable students and adults to fully contribute as active agents in a democratic society" (p. 1009). The new scientific findings that have the most potential to influence and inform personal and public policy decisions are often first reported in the popular media. In our study we developed a new method using media reports of scientific research to investigate some of the factors that influence the evaluation of credibility. News briefs varied systematically with respect to text dimensions (plausibility, typicality, quality of social context information and quality of methodological information). Students' credibility judgments were influenced by the plausibility of the conclusion, typicality of the discipline, and quality of research methods.

Students provided justifications that were coded for content. They referred to information in the news briefs, as well as to prior knowledge and beliefs, when justifying credibility judgments. An analysis of the credibility ratings alone would have been insufficient for determining the types of features that students might consider when evaluating the credibility of scientific research. For example, the quality of information about social context had no effect on overall credibility ratings. Over a third of the students, however, used social context information to justify a rating for at least one of four news briefs. The quality of information about methods only affected credibility ratings when the news brief topic was typical of the natural and physical sciences. The justifications provided evidence that students were reacting to methodological features mentioned in the low-typicality news briefs. In addition, the justification data provided evidence that students considered relevant methodological features that were missing from those reports.

In many respects the report-evaluation task (credibility judgments, but especially the justifications) revealed the criteria that university students considered important for evaluating the credibility of new scientific findings. The first step in any type of evaluation is to select and justify criteria for evaluating the item of interest (Scriven, 1980). Shadish (1989) examined the criteria that working scientists used to evaluate their own and colleagues' work. He noted that different conclusions about the quality of scientific work could result depending on the criteria selected for the evaluation. For example, the merit of a scientific study could be judged with respect to *outcome* criteria (i.e., concerning goals, or the impact on society) or *process* criteria (i.e., the characteristics of good scientific practice). That is, there are "multiple plausible ways" to evaluate quality or merit in science (Shadish, 1989, p. 390).

Of the six major categories in the taxonomy (Korpan et al., 1994; see Table 1), two map onto process criteria (Method and Data/Statistics) and one maps onto outcome criteria (Relevance of Research). These categories and subcategories represent criteria for evaluating frontier science before it is integrated into the literature and its impact well determined. First with the question-generation task and now with the report-evaluation task, it has been shown that students use a rich variety of criteria when evaluating new scientific findings. Methodological features were considered most important, but social context factors, theory, relevance, and the existence of related research were also used in the evaluation of credibility. At least some students showed signs of appreciating the multifaceted nature of science as a human activity.

One specific goal of this research was to determine whether the presence of information about the social context of research influenced judgments about credibility. Despite the broad set of criteria that could be useful for evaluating scientific research, we focused on this type of information because of arguments about epistemic dependence (Norris, 1995) and arguments that scientific literacy must be redefined such that it is relevant to the lay public (Shamos, 1995). Norris (1995) advocated strongly that students need to learn how to determine the believability of experts. To do so students need to understand the nature of science as a communal human activity in which knowledge about the social context of research (e.g., the prestige of the investigator and the quality of the journal, as judged by peers in the discipline who influence funding and publication) is critical. Information of this type often is described, at least briefly, in media reports and therefore it is available for evaluation. If scientific literacy is defined to include skills relevant to citizens who are not specialists in science, then sensitivity to information about the social context of science is important. Yet in the question-generation studies it appeared that knowledge about social context was less available and salient than knowledge about either method or theory. The students in our study demonstrated some recognition of social context factors. Even under the cognitively less demanding conditions of this study, however, this type of information was not particularly salient. Given the role that brief reports about science can have in contemporary life and continuing education, and also given the importance of information about social context of science in evaluating these media reports, students' lack of sensitivity to this type of information is of concern.

In contemporary education, literacy often is considered to be synonymous with competence or knowledge. Thus scientific literacy usually is assessed by measuring people's knowledge about scientific facts or methods. This sense of literacy differs from the more traditional meanings of the term, which typically include the ability to read. Unfortunately, reading in science courses often is limited to textbooks. Given the rich sources of information about science that exist in the popular media, the Internet, the writing of scientists, and other nontextbook publications, perhaps the traditional meaning of literacy needs to be taken to heart in contemporary science education. Learning to read, comprehend, and critically evaluate material from the diverse genres of scientific literature, including news briefs about science, would be of considerable benefit for students who are to become scientifically literate citizens.

Implications for Assessment of Scientific Literacy

The report-evaluation task and the generation task are both potentially useful methods for assessing literacy in science for several reasons. First, arguments have been made that literacy in science must be defined and assessed in a way that is related to the lives of students and adults (Bauer, 1992; Kyle, 1995a, 1995b; Shadish, 1995). The evaluation of scientific findings as first reported in the media is a real-world task that has relevance for citizens. An initially favorable evaluation of a media report regarding a personal or policy decision could lead to further reading or consultation with professionals who have appropriate expertise to guide decision-making. Second, this type of assessment does not rely solely on recall of factual and conceptual material. This

characteristic can be considered an asset because such knowledge is not well recalled as individuals move beyond formal schooling and into the work force (Miller, 1983; Shadish, 1995; Strauss, 1995). Thus a measure of scientific literacy that provides an index of how effectively citizens evaluate new information about science, but that is not heavily reliant on the accuracy of one's factual knowledge, could be useful. An interesting byproduct of assessment tasks that deemphasize factual recall is that they can be used to assess and compare scientific literacy across a wide range of age groups and education levels. Third, the question-generation and report-evaluation tasks are quite flexible and can be adapted for use in assessing knowledge about many aspects of the scientific enterprise, including the facts, concepts, and methods emphasized in the school curriculum; the connections among science, technology, and society (e.g., relevance); and the communal nature of scientific activity (e.g., the peer review system, consensual processes, and the process of generating scientific research).

Recently some test builders and curriculum designers have begun to see the potential value of using news reports about scientific research as a means for assessing and teaching aspects of scientific literacy (Michigan Education Assessment Program, 1994; Thier & Nagle, 1996). As our research demonstrates, in exploring use of news reports in these contexts close attention must be paid to the impact of text dimensions and features that affect students' performance (Voss et al., 1982). One advantage of using the evaluation of news briefs in assessments, however, is that tasks can be structured such that different forms of response are possible, including multiple-choice items, question generation, justifications, and short answers. Open-ended questions are more labor-intensive to score, but they allow educators to examine different types of knowledge than would be possible with methods based on recognition or cued recall. The single most important advantage of using open-ended test items is that they may be closest to the real-world task faced by citizens. Thus they would probably be a valid indicator of scientific literacy.

Final Remarks

Factual recall of scientific facts is a necessary but not sufficient demonstration of literacy in science. Students must also be taught about "the scientific culture": the communal nature of science, the tentative nature of new scientific findings, the continually self-correcting mechanisms of science, and the consensual processes that are critical for evaluating scientific knowledge. If we are interested in developing lifelong learning skills, we must emphasize that the media are a potential source of continuing science education. If contemporary science education is to be relevant and influential outside the classroom, then science educators must emphasize the skills necessary for reading, interpreting, and questioning new scientific findings. In our view the critical evaluation of frontier science helps students and adults to realize that science is more than a collection of procedures, facts, and formulas. Miller (1983) argued that "scientific literacy refers to the ability of the individual to read about, comprehend, and express an opinion on scientific matters" (p. 30). The call for more meaningful and relevant definitions and assessment of scientific literacy can be

answered by focusing on skill in the critical evaluation of cutting-edge science as first reported in the media.

Note

1. Although a main effect of sex was not found, a number of unexpected interactions occurred. Sex interacted with plausibility, $F(1,120) = 5.35$, $MS_e = 2.16$, $p<.05$, and typicality, $F(1,120) = 5.60$, $MS_e = 1.76$, $p<.05$, and with both these variables in a second-order interaction, $F(1,120) = 5.61$, $MS_e = 1.56$, $p<.05$. The only difference between males and females was for the high-typicality, low-plausibility (gasoline additive) news brief. The mean credibility rating was 4.09 for males and 3.21 for females ($p<.01$). There were significant differences in the number of science courses taken by males and females at the university level, $t(126) = 3.40$, $p<.001$, and for the total number of courses taken at university, $t(126) = 3.34$, $p<.001$. These differences cannot be accounted for in terms of differences in age or number of years out of high school. Males had taken more physics courses, $t(125) = 2.89$, $p<.01$, and chemistry courses, $t(125) = 2.25$, $p<.05$, at the high school level. If the differences between males and females were a result of the difference in science education, then the effects of sex would not be significant in a analysis of covariance (ANCOVA) with total number of science courses as the covariate. Interactions were still significant ($p<.05$), however, indicating that the difference in the number of science courses could not account for the interactions involving sex. Thus the source of this difference between males and females for the gasoline additive news brief is not related to differences in science education and remains unexplained.

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Appendix A
Sample of Test Materials

Title: Pesticides Harm Bird Populations (High Typicality, High Plausibility)
Version 1: Low Social Context, Low Method.
People are concerned that declines in wildlife populations will result in extinction for some species. A scientist from a private research facility has reported that birds that have been exposed to the insecticide Permaldrin are less likely to mate than usual. The project was funded by a provincial grant and the findings of the project were outlined at a conference. The study, which was conducted over two breeding seasons, involved the observation and examination of the mating behaviour of robins in a region where Permaldrin was known to be used. A group of 20 breeding pairs of robins was monitored during the period of study. The researcher has concluded that *using this insecticide is an important factor in causing a decrease in mating behaviour and subsequent birth rates for birds.*

Title: Meditation Helps Seniors (Low Typicality, High Plausibility)
Version 2: Low Social Context, High Method.
People in western countries have long been fascinated by traditional Eastern religious practices. A scientist from a private research facility has reported that senior citizens who enrolled in a Mai Handu meditation course showed an increased sense of well-being. The findings of the study were reported at a conference and a provincial grant funded the research project. The senior citizens' sense of well-being was measured after a six-month course in Mai Handu meditation and compared with that of seniors who had not yet taken the course. Two hundred seniors living in their own homes or in senior citizen lodges participated. The researcher has concluded that *practicing this meditation can be an important way to increase a sense of well-being in seniors.*

Title: New Gasoline Additive (High Typicality, Low Plausibility)
Version 3: High Social Context, Low Method.
People are concerned about the environmental effects of automobile emissions. A well-known research team from a major university has reported that vehicles burning gasoline containing the poisonous chemical Quipmanol reduce existing levels of air pollution. A reputable research journal published the findings of the project, which was funded with a federal research council grant. The reported results were based on a study in which a fleet of 10 cars from a major

automobile manufacturer was tested for harmful emissions. Each car was driven for a total of 40,000 km while burning a gasoline that had been enriched with Quipmanol. The researchers have concluded that *fueling vehicles with gasoline containing this poisonous chemical will be important for decreasing current levels of air pollution.*

Title: Dream Crystals (Low Typicality, Low Plausibility)
Version 4: High Social Context, High Method.
People have long been interested in what the future holds. A well-known research team from a major university reported that people wearing ollinite crystals during sleep are more likely to have dreams that predict the future. Funding was provided by a federal research council grant. The findings were published in a reputable research journal. The dream journal and daytime journal entries of sleepers who wore the ollinite crystal during sleep were examined and compared with the journals of sleepers who did not wear the crystal. A sample of 64 randomly selected participants kept these journals for a full year. The researchers have concluded that *wearing this type of crystal is important for increasing the frequency of dreams about future events.*

Appendix B
Examples of Students' Justifications

In the examples given below (+) denotes justifications with a positive valence and (-) denotes negative valence. New brief topics and text dimensions are: D=dream crystal (low plausibility, low typicality); M=meditation (high plausibility, low typicality); G=gasoline (low plausibility, high typicality); P=pesticide (high plausibility, high typicality). Features of the news briefs are: sc=social context, m=method, with l=low quality and h=high quality.

Social Context Justifications
(-) "funded by provincial government = *suspect results*" (M,lsc,lm,)
(-) "I felt uncertain because of a 'private research facility'—perhaps some credentials would be appropriate" (P,lsc,lm)
(-) "... the fact that the government squandered tax money on such ludicrous research" (D,hsc,hm)
(-) "The fact that the researcher has been given a provincial grant causes me to question the findings. The researcher may have given false findings so as to get more grant money" (M,lsc,hm)
(+) "provincial grants and being shown at a conference show credibility" (P,lsc,lm)
(+) "the reputation of the researchers and the objective funding is good for credibility" (D,P,hsc,lm)

Method Justifications
(-) "Further tests are required to rule out all other possibilities that may lead to the same result" (P,lsc,lm)
(-) "The researchers failed to use a control in this study" (M,hsc,lm)
(+) "The fact that the study had a control group to compare the test group with adds to the credibility of the report" (P,lsc,hm)
(-) "The main problem is sample size" (D,hsc,lm)

(-) "The claim is based on a small number of cars driven a relatively short distance" (G,lsc,hm)
(-) "All subjects are university students, a broader mix should be chosen" (D,lsc,lm)
(-) "Only one species of bird was studied; the conclusion is not valid for other groups of birds" (P,lsc,lm)
(+) "As everything can be measured quantitatively, it is more reliable" (G,hsc,hm)

Belief Justifications
(-) "My personal judgment says this is false" (D,hsc,hm)
(-) "I don't believe that a poisonous chemical would decrease air pollution" (G,lsc,lm)
(-) "It's just hard to believe" (D,lsc,lm)
(-) "I do not believe in this type of behaviour, no matter what one did to prove it to me" (D,hsc,lm)
(+) "This is intuitive. Meditation does increase well-being" (M,hsc,lm)
(+) "I believe pesticides do harm birds" (P,lsc,lm)
(+) "I believe this one because I believe that meditating is healthy" (M,lsc,lm)
(+) "Although I have never heard of Permaldrin, I believe pesticides could change mating patterns" (P,hsc,lm)

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Curriculum Decisions About Literature in Contemporary Classrooms: A Preliminary Analysis of a Survey of Materials Used in Edmonton Grade 10 English Courses

A survey of the materials used in grade 10 English classes in Edmonton in 1996 produced returns from 21 out of 22 schools in the public and Catholic systems. Teachers produced 1,698 citations of titles, covering materials in different print genres, film and video, and a few titles in other media. A small number of titles predominated in the lists, particularly Romeo and Juliet *and* To Kill a Mockingbird. *The most popular titles in a range of genres, as cited by the teachers, are included in this article, which constitutes a preliminary analysis of the data.*

En 1996, 21 sur 22 écoles des systèmes publique et catholique de la ville d'Edmonton ont répondu à un sondage des différents genres de matériel didactique utilisés dans l'enseignement de l'anglais en 10e année. Les enseignants et les enseignantes ont cité 1.698 titres provenant de différents genres de publications imprimées, de films, de vidéocassettes et quelques autres titres provenant de d'autres médias. On a remarqué que certains titres étaient communs à toutes les listes, en particulier Romeo and Juliet *et* To Kill a Mockingbird. *Cet article regroupe les titres les plus populaires qu'ont identifié les enseignants et les enseignantes à partir d'une gamme de différents genres de documents et il en présente une analyse préliminaire des données.*

Questions about literate behaviors often founder on a lack of specific information about what today's young people are reading. Even basic information about the kinds of materials actually being taught in school is hard to find. Student achievement is monitored in a variety of ways, but a specific awareness of experiences and materials to which students are exposed in their classrooms is a subject about which we know much less. Yet most theories of the teaching of reading would support the idea that *what* students read is important, both in terms of the kinds of reading strategies they acquire and also, and even more importantly, in terms of how their attitude to reading is affected. We know that today's classrooms are different from those of a generation ago: more multiethnic, more inclusive, more challenged by the social and economic problems of a wide band of students. Theories of literacy teaching have also changed radical-

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ly over the past generation. In the face of these changes, information about actual teaching practices is valuable, both in grounding theoretical advances and in supporting realistic curriculum review. Data about contemporary teaching practices can also serve as a baseline for subsequent larger studies of student reading choices and/or school practices.

The project described in this article was developed to establish and document texts being used in the grade 10 English classes in Edmonton, Alberta. The study involved a survey of all high schools in the public and Catholic Edmonton school systems conducted in the spring of 1996. All teachers of a grade 10 course (English 10, 13, 16, pre-IB, AP, etc.) were invited to report on the materials they used.

The Alberta English curriculum in place at the time of this survey supports a broad approach to the development of specified outcomes. Teachers have access to an authorized novels list and a list of approved resources, but provisions exist for them to make use of their own independent choices in class as well.

We chose to explore grade 10 courses because these teachers have greater flexibility in choosing class materials than they do in later years of high school. In grade 11 there is a high mandated element of Canadian content, and in grade 12 the pressure of the provincial examinations is ever-present. Grade 10 also represents a turning point for many students, a time when some take the plunge into reading more adult materials and some diminish their reading time or give up on reading altogether. According to Cone (1994), many students at this level are at particular risk of being stalled in their reading development because they fail to find books that address their own experiences. We hope eventually to conduct a broader survey of students' personal reading interests and plan to make comparisons between what they choose to read privately and what they encounter in school; to do such work with grade 10 students offers the opportunity to explore a time when real and important choices about lifelong literacy are being made by these young people.

Rationale for the Study

There is a paucity of contemporary Canadian data about the materials used in language arts classrooms. However, some other issues are easier to pin down. It is clear that the demographics of these classrooms are not what they used to be. The figures of the 1996 census reflect shifts in the makeup of the population of Edmonton. Currently the top five sources of new immigrants to Edmonton are the Philippines, China, Hong Kong, India, and Viet Nam, a major shift from the days when most new citizens arrived from Europe (Thorne, 1997).

There is little information about how classes are changing to meet these new challenges. Cameron's (1989) study produced some information on Alberta teachers' attitudes to and use of Canadian material in their classrooms, but those data are not up-to-date and do not reflect the most recent changes in the demographics of contemporary urban classrooms. Tomkins' (1986) commentary on Canadian curriculum issues does not deal with current circumstances, and Gambell's (1986) study of language arts teaching, although important, is now mainly of historical interest.

Gambell's (1986) study does, however, allow for some comparative work to be done, at least in the area of novel study. He supplies a snapshot of the titles (he says of literature, but all his examples are in fact novels) approved by different provincial education departments in 1980. He does not include evidence of which titles were actually taught and at what grade level. His top 14 titles, those authorized by a majority of provinces, complete with the extra information he supplied are shown in Table 1.

This list is strikingly male (only two female authors out of 14, with an equally small number of female protagonists), strikingly white (all the authors and most of the characters are white and Western), and strikingly unicultural (with United States and British authors preponderant).

Applebee's (1993) extensive surveys of both public and private junior and senior high schools across the US found that a majority of teachers in that country were still teaching mainly male-dominated, canonized British and US texts. Most literature curricula were organized on a chronological basis, with students "covering" Western literature of particular historical periods. There was little attempt to introduce non-white writers and few contemporary texts. *To Kill a Mockingbird* and *Romeo and Juliet* were high on the favored texts for grade 10. In the eight years since Applebee's studies, there have been major changes in many states with teachers being required to introduce a particular percentage of texts by writers from minority cultures; a more up-to-date survey would be welcome.

At a theoretical level, much more information is available. The importance to young readers of being able to see themselves in their reading is attested to by many literary and pedagogical experts (Chambers, 1993; Dias, 1992). Many television programs and popular novels offer students a rather superficial reflection of contemporary life; the value of being exposed to a more substantial

Table 1
Titles Most Commonly Authorized in Canada in 1980

Title	*Author*	*Nationality of author*	*No. of province listed*
To Kill a Mockingbird	Lee, H.	US	8
The Pearl	Steinbeck, J.	US	8
Lord of the Flies	Golding, W.	British	8
Who has Seen the Wind?	Mitchell, W.O.	Canadian	7
The Old Man and the Sea	Hemingway, E.	US	7
The Chrysalids	Wyndham, J.	British	7
Animal Farm	Orwell, G.	British	7
The Red Pony	Steinbeck, J.	US	6
Pigman	Zindel, P.	US	6
Great Expectations	Dickens, C.	British	6
A Separate Peace	Knowles, J.	US	6
Lost Horizon	Hilton, J.	British	6
Lost in the Barrens	Mowat, F.	Canadian	6
The Incredible Journey	Burnford, S.	Canadian	6

(Gambell, 1986, p. 96).

kind of contemporary literature is that students are given the chance to try out new ways of thinking about and responding to the real pressures of their lives. A curriculum that concentrates on the standard texts that have been taught for the past 20 years can inadvertently communicate a disrespect for cultures outside the middle-class white mainstream, and also a lack of interest in a female perspective on the world (Morrison, 1992). As James (1994) suggests, curriculum choices that fail to take account of students' diverse backgrounds may inadvertently make students "feel invisible and insignificant and that their differences are irrelevant" (p. 27).

On the level of process it is also important for teachers to model ways of reacting to new and challenging texts. Too often teachers model an "expert" approach to reading, using texts they know inside out, an approach that assumes there is always a right answer and the teacher usually knows what it is (Nodelman, 1996). Our survey does not provide information about teaching strategies, but data about text selection offer an oblique perspective on what may constitute an acceptable level of risk in the classroom. Further analysis of the list of texts cited only once may shed further light on this complex territory, but that topic is not the focus of this article.

Method

With the cooperation of the school authorities and the English department heads, we approached all the grade 10 English teachers in the two mainstream systems. Teachers were asked to fill in one questionnaire for each different kind of class they were teaching at the time of the survey, spring 1996. Thus, if a teacher was teaching two English 10 classes and one English 13 class, she or he would fill in two forms: one for English 10 and one for English 13. We wanted to minimize the work for teachers while obtaining the maximum amount of information. Our working assumption was that a teacher would use broadly the same resources in two classes of the same course. Thus our 95 responses provide information about 95 courses, but almost certainly represent a smaller number of teachers as some teachers filled in more than one questionnaire.

We delivered the surveys to schools, speaking to meetings of the English department if requested. Rather than ask teachers to deliver or mail the completed surveys, we picked them up from the schools when they were completed. Our assessment is that this approach led to a higher degree of participation than might otherwise have been expected.

In the questionnaire we asked teachers to supply the titles of all the texts that were used over the course of the year or semester in each grade 10 class for which they were responding. We asked if students were ever given a free or limited choice of reading material. If students were given a choice from a list of suggestions, we asked teachers to append that list. We also asked teachers to provide information about the classes (number of boys and girls, special circumstances such as a high number of special needs students, and optional information about demographics). Finally, we asked them for some minimal information about themselves (gender, date of graduation from university, continuing education experience, and years in teaching).

The process of transferring the questionnaire answers to a database, locating complete bibliographical information for each citation, and establishing a

certain amount of background information about the texts and their authors was highly labor-intensive. Betty-Anne Schlender did the major part of this work, assisted in the later stages by Carlos Alonso and Jane Parkinson, and to them we owe our thanks.

Responses

Questionnaires were distributed to the 22 high schools in the public and Catholic systems in Edmonton, and grade 10 teachers from 21 of these schools responded. Not every eligible teacher in every school filled out a response, but a total of 95 responses (representing advanced, regular academic, and general English courses) provided detailed outlines of all the texts used in class over a single course, whether organized on a full-year or semester basis.

In total teachers provided 1,809 citations to texts in a variety of genres and formats: novels, short stories, poems, films, essays, and a small number of miscellaneous entries including journalism, a few audiorecordings, and two CD-ROMs. Of these entries 111 have so far proved to be impossible to support with data, so the database currently incorporates 1,698 citations pending further detective work (see Table 2).

The Courses and the Students

In Alberta grade 10 is the first year of high school. The major division between academic and general students is reflected in the two main English courses. English 10 is designed for the mainstream academic university-bound route. Some schools offer augmented courses for the more academic students: such courses are represented in our findings as English AP (Advanced Placement), English Pre-IB (the initial course of the International Baccalaureate program) or English honors. The main general course is English 13, and students who require more support are registered in English 16.

Of the 95 courses represented in these findings, 43 are English 10. Sixteen courses are some version of advanced or special course (IB, AP, etc.), and 35 are courses in the nonacademic stream. One class is taught as Humanities.

The gender distribution of students in these different courses showed that boys are overrepresented in the English 13 and English 16 classes. There are 516 boys and 293 girls in these courses, according to the teachers' returns. In the regular and academic streams, the numbers are fairly even, with 735 boys and 791 girls. In total the classes described in these responses include 1,151 boys and 1,084 girls, 2,235 students overall.

In our preliminary discussions with teachers we broached the idea of establishing a certain amount of background information about their students. Teachers were understandably reluctant to commit themselves to sociological shorthand to describe their classes, so we made it clear that any such description was optional. Even so, 33 of the 95 classes were described by their teachers as multicultural, and it seems possible that this number underrepresents the reality. The city of Edmonton more or less matches the national average for residents born outside Canada, with the 1996 census recording approximately 18% of Edmonton citizens in this category (Mitchell, 1997). This figure does not include second- and third-generation Canadians who also represent a variety of ethnic, cultural, and linguistic origins; furthermore, the figure does not include citizens of Aboriginal origin who may similarly bring a whole different

Table 2
Total Citations

Print Genres	*Number of Citations*	*Other Media Genres*	*Number of Citations*
Biography	1	CD-Rom	2
Essay	90	Documentary Film/Video	39
Journalism	4	Feature Film	266
Myth	56	Photo Essay	1
Novel	168	Television Comedy	3
Play	156	Television Drama	3
Poem	403		
Screenplay	2	Total	1,698
Short Story	501		
Song	3		

set of experiences and expectations to the classroom. One example of the kind of diversity present in Edmonton high schools lies in a survey conducted in 1998 in one large Edmonton high school that uncovered 55 different languages used in the homes of its students (Carson, Johnston, Chana, Leard, & Wittse, in press).

The teachers were happier to describe themselves, at least in terms of their educational backgrounds and teaching experience. From the 95 courses 74 responses supplied information about the teacher's date of graduation. Of these 74 replies 65 described teachers who graduated from university before 1990 and more than half who graduated before 1980. Women outnumber men by a factor of 3 to 1 (69-23—three responses did not provide information on gender).

Findings

In this article we focus particularly on the use of novels, plays, and films in the English classrooms, with a supplementary outline of the preliminary findings concerning short stories and poems.

Novels

The most striking aspect of the list of novels recorded was the intensive use of a small number of novels. The top 13 novels listed accounted for 104 of the 168 citations of novels. The top seven novels were cited 84 times altogether, compared with the total of 84 citations covering the remaining 52 titles. Thirty-six novels were cited only once each. At the other end of the scale, one title, *To Kill a Mockingbird*, appeared 36 times, being cited across all the course boundaries (see Table 3).

To Kill a Mockingbird is mainly taught in English 10 (25 citations), but it is also taught in the advanced courses (a total of 7 citations), in English 13 (3 citations), and in one English support class. Only *Romeo and Juliet* challenges it for domination of the city's grade 10 English classes. Anecdotal evidence from many other English-speaking countries suggests that the popularity of this title in high school English classrooms is widespread, both nationally and internationally, although some educators question whether it is not now out of date in

Table 3
Most Frequently Cited Novels—A Baker's Dozen

No.	Title	Date	Author	Author's Nationality
36	*To Kill a Mockingbird*	1960	Harper Lee	US
10	*Deathwatch*	1972	Robb White	US
9	*Children of the River*	1989	Linda Crew	US
9	*The Chrysalids*	1955	John Wyndham	British
8	*Lord of the Flies*	1954	William Golding	British
7	*Hunter in the Dark*	1982	Monica Hughes	Canadian
5	*Anne Frank: The Diary of a Young Girl*	1947	Anne Frank	Dutch
4	*The Adventures of Huckleberry Finn*	1885	Mark Twain	US
4	*Who Has Seen the Wind?*	1947	W.O. Mitchell	Canadian
3	*Animal Farm*	1946	George Orwell	British
3	*Hatchet*	1987	Gary Paulsen	US
3	*Waiting for the Rain*	1987	Sheila Gordon	South African
3	*Z for Zachariah*	1974	Robert C. O'Brien	US
104				

Total number of citations: 168.
Total number of individual titles: 59.

its assumptions of white liberal benevolence and superiority (Ricker-Wilson, 1998).

Information about the authors of these novels provides some interesting insights into the nature of grade 10 English courses. There were 59 titles cited, but only 57 authors. Mark Twain (*The Adventures of Huckleberry Finn* and *The Mysterious Visitor*) and Monica Hughes (*Log Jam* and *Hunter in the Dark*) appeared twice. Our background searches on authors revealed that, of the 51 authors for whom date of birth could be located, 63% (32 authors) were born in the relatively short period between 1900 and 1940. Eleven authors, or 21%, were born before 1900, and a mere 16% (8 authors) were born after 1940.

There is a clear tendency toward male authors (partly balanced out, presumably, by the many appearances of Harper Lee in actual classrooms). Of the 56 authors for whom gender could be clearly established, 64% (36 in absolute numbers) are men and 36% (20) are women. US authors outnumber Canadian and British added together (26 US authors, 12 British, 9 Canadian, and 11 listed under other nationalities, some of them with a connection to two countries rather than one, working from a total of 53 writers for whom national connections could be established).

Alberta has an authorized reading list for high school English, and this list is well represented in these findings. Of the 168 citations of novels 100 came from the authorized list. The fiction list for grade 10 includes 38 titles, and 19 of these were cited by teachers.

Both the authorized lists of titles for English 10 and English 13 and our own findings from this survey show a pronounced skew toward older material being used in the English 10 curriculum. Only three of the 14 novels suggested for English 10 by the Province of Alberta were published after 1980. By contrast,

on the English 13 list eight of the 13 titles were published after 1980. On the authorized lists the only contemporary titles were published either as young adult fiction or as adult fantasy (only two titles in the latter case). Of the novels listed by grade 10 teachers, every title published after 1980 is a young adult novel; there is not a single citation of an adult book published after 1980. We also know that the young adult books are largely being taught in the non-academic classes (a total of 44 citations to YA novels in English 13 and 16 as opposed to a total of 17 in the more academic streams), which suggests that the English 10 and IB and AP students are getting little exposure to contemporary novels.

Although the most popular titles in this 1996 survey are not identical to those listed by Gambell (1986) as authorized by the provinces in 1980, there is an overlap of several titles, and the predominance of *To Kill a Mockingbird* remains the same. Gambell's list is not confined to high school titles, and there is no doubt that some of his other titles are still being widely taught in junior high classes and in grades 11 and 12.

Plays

Like the novels list, the list of plays taught is dominated by a single author, whose identity will probably surprise no one. William Shakespeare towers over the play citations in thoroughly overwhelming fashion. There are 46 citations for *Romeo and Juliet* alone, and another 24 for other plays by Shakespeare, leading to a total of 70 out of 156 citations altogether (45%). Several other plays appear in more than one class list, but nothing remotely challenges Shakespeare's supremacy in these classrooms (see Table 4).

As with *To Kill a Mockingbird*, *Romeo and Juliet* is taught in every type of grade 10 English course, even in English 16, the least academic course represented on these lists. It might be suspected that some of the less academic courses rely on a film version, but all of these 46 entries say that the version

Table 4
Most Frequently Cited Plays

No.	*Title*	*Date*	*Author*	*Author's Nationality*
46	*Romeo and Juliet*	1597	W. Shakespeare	British
16	*Twelve Angry Men*	1956	Reginald Rose	US
11	*Merchant of Venice*	ca.1595	W. Shakespeare	British
9	*Inherit the Wind*	1955	Jerome Lawrence	US
5	*Julius Caesar*	ca.1610	W. Shakespeare	British
4	*Fiddler on the Roof*	1965	Joseph Stein	US
4	*The Hitchhiker*	1947	Lucille Fletcher	US
4	*Macbeth*	ca.1606	W. Shakespeare	British
4	*A Midsummer Night's Dream*	ca.1595	W. Shakespeare	British
4	*Pygmalion*	1913	G.B.Shaw	British
4	*Tell Me Another Story, Sing Me a Song*	?	Jean Lennox Toddie	?
111				

Total number of citations: 156.
Total number of individual titles: 41.

being described is a print edition. (We would welcome more information about *Tell Me Another Story, Sing Me a Song*.)

Films

The most striking feature of the list of most popular films is its strong connection to print literature. Almost all of the top 14 films relate to a text that also appears in the curriculum in its print form. Viewing is a strand of the mandated curriculum, but it would appear from these responses that viewing activities are strongly linked to the print-based texts. There is nothing wrong, of course, with viewing a movie connected to a print text, but it does potentially imply a secondary role for film (see Table 5).

Films of *Romeo and Juliet* and *To Kill a Mockingbird* overwhelm this list, as they do their original print lists. It is worth noting that the 1996 film of *Romeo and Juliet* had not been released at the time of this survey, let alone been made available in video form, and so all the citations refer to the Zeffirelli production. As with their print counterparts, these two films are shown in every course listed, from English 16 to the advanced classes.

A survey of the date of release for all the films shown in these English classrooms is weighted toward the 1960s by these two major entries in the list. Even so, it is notable how few contemporary films are being shown in these classes. Teachers may have varying rationales for this approach, but it does mean that students do not get much opportunity to discuss issues of content and form in contemporary moviemaking. The new *Romeo and Juliet* video will alter this state of affairs to a degree, of course, but without necessarily changing the emphasis on movies as apparent add-ons to books.

Table 5
Most Frequently Cited Feature Films

Number of Citations	*Title*	*Date*
44	*Romeo and Juliet* (Zeffirelli)	1968
30	*To Kill a Mockingbird*	1962
11	*Twelve Angry Men*	1957
8	*The Power of One*	1992
7	*Clash of the Titans*	1981
7	*Merchant of Venice*	1981
5	*Man Without a Face*	1993
4	*Apollo 13*	1995
4	*Field of Dreams*	1989
4	*Inherit the Wind*	1960
4	*Lord of the Flies*	1989
4	*Macbeth*	1984
4	*The Veldt*	1979
4	*West Side Story*	1961
140		

Total number of Feature Film citations: 266.
Total number of individual titles: 122.

Few media other than film or video appear in these citations. There are only 10 listings of audiorecordings, all dealing with songs or poems, and two citations of a CD-ROM.

Short Stories and Poems

Analysis of these genres is still going on at the time of writing, but some preliminary findings suggest that clustering occurs in these areas as well, although there is no dominant single title to compare with the novel and play citations (see Tables 6 and 7).

The short stories reveal the strongest component of Canadian content and the highest proportion of women writers. The list of the most widely used poets is predominantly male, and four of the 13 authors most frequently taught are Canadian.

Publication dates for stories and poems are taking longer to ascertain because teachers listed the anthology sources and we are still in the process of pursuing original dates of publication for these genres. Clearly much more work needs to be done with this information, and this challenge represents the next stage in this project.

Discussion

One striking element in all these lists is the vast amount of work being accomplished in the grade 10 English classrooms. Teachers attached large reading lists to their questionnaires and demonstrated a broad commitment to using a range of genres and styles. There is some evidence that Canadian material is used widely, especially in the fields of short stories and, to a lesser degree, poetry. This overview of the preliminary findings has concentrated on the titles that appear most often, but there is a broad range of titles that have been cited only once, and this article does not do justice to the quantity and quality of exploratory work being done in schools. We hope to rectify this omission as we make further progress in analyzing the returns.

The vast quantity of data returned by teachers means that the process of recording and analyzing has been relatively slow. However, the advantage of this detailed response lies in the vividness of the portrait supplied by so many examples of actual titles being taught. Generalizations about materials being used in classrooms can be useful, but the specificity of the lists of particular titles is informative in a different way. We were not able to find baseline Canadian survey work to compare with Applebee's (1993) extensive survey work in the US. Gambell's (1986) list refers to titles authorized rather than titles used, so it is not strictly comparable. We hope our survey will provide a benchmark for comparisons in future years. The introduction of the Western Canada Protocol will have an impact on Alberta classrooms, and our survey will provide comparative data concerning pre-Protocol classrooms that should prove useful in years to come.

There is a strong suggestion in these data that there is a clearcut "school canon," that the same texts are being taught at many different levels and in many different schools. It is notable that the main titles that dominate these lists (especially the novel and play lists) also appear in US surveys (Applebee, 1993), and informal evidence suggests that they feature heavily in British, Australian, and South African schools as well. Whether this overlap reflects a

Table 6
Most Frequently Cited Short Stories

Number	*Title*	*Author*	*Author's Nationality*
23	The Veldt	Ray Bradbury	US
17	The Father	Hugh Garner	British
18	The Half-Husky	Margaret Lawrence	Canadian
14	The Scarlet Ibis	James Hurst	US
14	The Sea-Devil	Arthur Gordon	US
13	Friday Everything Changed	Anne Hart	Canadian
12	Penny in the Dust	Ernest Buckler	Canadian
10	Alicia	Gabrielle Roy	Canadian
10	The Day of the Butterfly	Alice Munro	Canadian
10	The Interlopers	Saki	British
10	The Tell-Tale Heart	Edgar Allen Poe	US
9	Through the Tunnel	Doris Lessing	British
8	A Man Called Horse	Dorothy Johnson	US
8	An Ounce of Cure	Alice Munro	Canadian
8	Poison	Roald Dahl	British
8	The Witch	Shirley Jackson	US
192			

Total number of citations: 501.
Total number of individual titles: 181.

Table 7
Most Frequently Cited Poems

No.	*Title*	*Author*	*Author's Nationality*
7	David	Earle Birney	Canadian
7	Shall I compare Thee to a Summer's Day?	W. Shakespeare	British
6	About School	Anonymous	
6	Richard Cory	Edward A. Robinson	US
5	The Average	W.H. Auden	British
5	The Highwayman	Alfred Noyes	British
5	The Universal Soldier	Buffy Sainte-Marie	Canadian
5	Warren Pryor	Alden Nowlan	Canadian
4	Ex-Basketball Player	John Updike	US
4	The Man Who Finds that his Son has Become a Thief	Raymond Souster	Canadian
4	Nobody Loses All the Time	ee cummings	US
4	The Unknown Citizen	W.H. Auden	British
4	The World Is Too Much With Us	William Wordsworth	British
66			

Total number of citations: 403.
Total number on individual titles: 244.

positive global consensus that these are the best possible options, a lack of resources to buy new material, or a reflection of teacher familiarity and comfort with known texts is impossible to determine from our evidence. Applebee (1993), in his extensive survey of US teachers and the texts they teach, observed,

> Overall, the teachers were most comfortable with their teaching of "great works from the Western tradition," and least comfortable with adolescent/young adult selections and those by nonwestern authors. Reports of success with works by women and by minority authors were noticeably lower than for great works. (p. 81)

Teachers' comfort levels are not to be discounted. Ramsden (1997), looking at how examination boards in Britain select texts for syllabuses, observed, "Examination boards are aware teachers need to love the works they are teaching if the syllabus is to provide a good education as well as a final qualification" (p. 6). We did not canvass Edmonton teachers' attitudes toward the materials they taught; the whole question of teachers' true and private opinions of their teaching texts has the potential to be a substantial research study in its own right.

It is not clear to what degree the materials used in classrooms will change as teachers retire. According to a Statistics Canada survey, if the retirement age is 60 about 61% of elementary and secondary schoolteachers in Canada (211,000 out of 347,000) will retire between 1997 and 2015 (Galt, 1997). The potential for change in such circumstances is clearly considerable, but new teachers are often eager and/or obliged to replicate the work of those they replace because of pressures created by the lack of new resources and also because they often adopt materials and strategies they have used in their practicum experience.

It is evident, even from the teachers' tentative descriptions of their own classrooms, that the schools covered by this study are becoming more culturally diverse. However, the main entries in these different lists are still predominantly white, and such examples of a multiethnic perspective as exist are still largely offered by white writers such as Harper Lee, Linda Crew, and Ray Bradbury. There are few citations of writers from minority ethnic groups.

There is also little contemporary writing on this list. The huge majority of authors represented were born between 1900 and 1940, reinforcing the idea that there is a kind of school canon in effect that is largely white and "middle-aged." The way this canon is reflected in the film choices reinforces its ubiquity. To a degree this trend simply mirrors the Alberta high school official reading list; the selection of new resource lists to support the Western Protocol may offer an opportunity to consider changes. It is clearly vital that schools be given appropriate budgets to augment their current collections as the Western Protocol is implemented. It is also essential that the whole question of English teachers' time be readdressed; recent developments in Edmonton have reduced preparation and marking time for English teachers, and such an approach does not take a realistic account of the real needs of teachers and their students. Teachers cannot be expected to make changes that take account of the new realities in their classrooms if time to read, to think, and to prepare new

materials is constantly being diminished. Similarly, realistic and useful attention needs to be paid to teachers' inservice needs.

Conclusion

This article presents a preliminary analysis of some of the major data produced by a survey of grade 10 teaching materials in Edmonton English classes. Our purpose throughout this project has been to document, not to judge, and to provide concrete and detailed baseline information for subsequent studies that may follow changes in the classroom over the next several years. Although much work remains to be done, some trends are clear. At present most texts presented in these classes are written by white Western writers, largely those born between 1900 and 1940. The challenge to teachers is to find ways of teaching texts that take broader account of the age and ethnic composition of their classes without losing the energy and commitment so clearly represented in the returns to the survey.

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Differences in Word Recognition Based on Approach to Reading Instruction

Two groups of grade 2 students who differed in their teacher's instructional approach to reading were compared on various word recognition tasks. Fifty-four students participated in the study, 27 from whole language classrooms and 27 from phonics/skills-based classrooms. Reading level was assessed using the Gates MacGinitie reading comprehension subtest (MacGinitie & MacGinitie, 1992). From the Gates MacGinitie, a criterion at or above the 25th percentile was established for participation. At the end of grade 2, these tasks were administered to all the students: (a) word identification with words presented in isolation and in context, (b) a grapheme substitution passage, and (c) a cloze procedure. The cloze procedure was the only measure to show significant difference between the groups favoring whole language classrooms. There were no other significant findings between the two instructional groups suggesting that for these students instructional approach had little effect on word recognition strategies.

Deux groupes d'élèves de la 2^{e} année qui avaient reçu un enseignement différent en lecture furent comparés à partir de différentes tâches en identification de vocabulaire. Cinquante-quatre élèves participaient à l'étude; 27 provenant de classes se servant de la méthode globale et 27 de classes se servant de la méthode phonique. Le niveau de compréhension en lecture fut déterminé par le test en compréhension de lecture Gates MacGinitie (MacGinitie & MacGinitie, 1992). En se servant du test Gates MacGinitie, le critère de participation fut établi au 25^{e} percentile ou plus. À la fin de la 2^{e} année, les élèves furent soumis aux tâches suivantes: (a) l'identification des mots en situation isolée et en contexte; (b) la substitution de graphème dans un extrait; et (c) la procédure "cloze." La procédure cloze fut la seule mesure à démontrer une différence significative entre les groupes enseignés selon la méthode globale. Aucune autre différence significative ne fut notée entre les deux groupes, suggérant que l'approche pédagogique avait peu d'effets sur les stratégies de reconnaissance du vocabulaire.

Teachers usually prefer and select one of two philosophies or approaches to teach beginning reading. One of these approaches involves whole language (WL), focused on using oral language experiences as a basis for learning to read from the context of real literature. The other involves a phonics/skills-based (PSB) approach, focused on letters, sounds of letters, and word identification. Advocates for one or the other of these two approaches argue as to which is most appropriate for teaching reading.

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The dispute between proponents of these two approaches, PSB and WL, has existed for decades. In her seminal work, Chall (1967) referred to this dispute as "The Great Debate." The fact that this debate has been conducted not only in academic journals, but also in mainstream periodicals speaks to the importance of this issue for reading instruction. In a 1990 *Newsweek* article, Kantrowitz reviewed the controversy between advocates for a PSB or for a WL approach. He drew a parallel between a real war and the tension between these two camps. In 1992 Mather stated that WL teachers were changing the way reading and writing instruction is carried out in the schools. By 1996 Levine, writing in *Parents* magazine, reported that WL was the basis for the failure of many students to acquire reading skills. Vacca (1996) indicated that "the Reading Wars" going on in the media, legislatures, and in schools remained the major issue in the teaching of reading.

What is the core issue between these two sides? The basic issue is whether learning to reading is a natural process like learning to talk. Goodman (1986), supporting a WL approach, emphasized the natural learning of oral language and suggested that learning to read should be a natural process if meaning is the objective. On the other hand, Evans and Carr (1985) contended that teachers who follow a PSB approach believe that reading is not a natural process and must be taught using direct instruction.

For the WL teacher the underlying belief is that students will learn language rules without explicit instruction (King & Goodman, 1990). In the classroom the teacher teaches skills and strategies in the context of reading and writing, not in isolation. A variety of strategies for word identification are taught with no one strategy such as phonics used exclusively (Stahl, McKenna, & Pagnucco, 1994)

In the PSB classroom, in the initial stages of learning to read students are taught basic skills that aid in the decoding of written words. These skills include becoming aware of sounds in words and learning how to connect oral sounds with letters and words. This awareness of sound units in words, or phonological awareness, has been cited by many researchers as essential to the reading process (Share & Stanovich, 1995; Torgesen, Wagner, & Rashotte, 1994).

One of the specific areas of concern in learning to read that is common for both approaches is word recognition and how this is taught. Besner and Humphreys (1991) indicated that for over two decades research in visual word recognition has been a predominant topic in cognitive psychology. WL proponents reported that when students learned words from context, as opposed to learning from word lists, they made fewer mistakes (Goodman, 1965). They also believe that teaching the learner to rely on precise word identification skills may result in a reliance on graphic information only, which may impede reading development (Smith, Goodman, & Meredith, 1970). Context is viewed as essential for word identification because it provides meaning to the identification process (Goodman, 1986). The word gathers its meaning from other words around it and from the structure of the story.

Ediger (1995) stated the PSB position regarding teaching skills for word recognition. The students must be taught phonics, syllabication, and configuration clues, all of which are part of the word recognition process. Thus, in a PSB approach, students learn the individual sounds of words, which helps them to

identify words (Freppon, 1993). Rules for this process are taught, and both phonological processing and the alphabetic principle are addressed.

Pressley and Rankin (1994) surveyed teachers as to the approach they employed to teach beginning reading. Almost all the teachers in their survey indicated "that they were either WL teachers or at least WL teachers part of the time" (p. 164). In this survey, what teachers practiced in class was generally consistent with their WL preference. Sacks and Mergendoller (1997), in a study of kindergarten teachers, reported that WL teachers and PSB teachers stressed different literacy activities in accordance with their instructional beliefs. The question that remains from these studies is what impact teachers' instructional beliefs have on the skills and processes that are developed by the beginning reader, particularly in the development of word recognition ability.

The purpose of this study was to determine differences in students' word recognition tasks based on teacher's stated approach to teaching beginning reading, WL or PSB instruction. A quasi experimental design was chosen for this study.

Method

Classrooms

Grade 2 teachers were asked to identify their approach to reading instruction. The teachers' professed instructional philosophy was used as a basis for the selection of grade 2 classrooms. All the teachers were women. Each teacher was asked in an interview to define her philosophy of reading instruction and describe how it was reflected in her reading program. The interview was followed by classroom observations, which were carried out by the first author.

In WL classrooms teachers stated that students learn to read and write through meaningful interactions with literature. Students are taught to read for a purpose and learn to read through reading. The teachers stated that students also learn to read through their own writings. Integrated into the routine of all the WL classrooms was a writing program that included writing daily journals, poems, and stories. Teaching phonics occurred only incidentally and not as part of direct instruction. Word recognition was taught using the context of each story.

In PSB classrooms teachers stated that instruction should occur in a systematic and sequential manner. This included direct instruction of phoneme-grapheme correspondence rules. The PSB teachers stated that students need to be taught prerequisite skills in order to read, and it is through these taught skills that students are able to decode new words. In these classrooms students are encouraged to sound out unfamiliar words. Students' attention is directed to both individual letter-sound correspondences and to larger word segments such as syllables. Before reading a new story, teachers first reviewed new words, attending to the salient sound features associated with letter combinations contained in the words. Next the teacher reads the new story aloud and then asks students to follow along while she rereads the story. In these classrooms the students also work in teacher-constructed printing books where they practice copying letters, sentences, and passages. Word recognition is taught out of the context of continuous print.

Five classrooms were chosen from four schools: three where the teachers followed a WL, literature-based approach and two where the teachers used a PSB, sequential approach to instruction. Because two of the WL classrooms were grade 2-3 splits, a third WL classroom was required to obtain an equal number of students from each instructional approach.

Participants

A total of 54 grade 2 students received parental permission to participate and achieved above the minimum reading requirement for this study. Reading level was assessed using the comprehension subtest of the Gates-MacGinitie Reading Test, Second Canadian Edition, Level B (MacGinitie & MacGinitie, 1992). The criterion score for participation was set at the 25th percentile, corresponding to a grade equivalent of 2.2 (*T*-score = 43). We thought that students reading below this level would find the selected passages too difficult and therefore, for ethical reasons, they were not included in this study. Grade 2 students were selected, as most of the students at this grade level could read well enough to complete the word recognition tasks used in the study as opposed to grade 1 students. By grade 3 too many students will have developed an integrated approach to reading, reflective of Chall's (1972) Stage 3 of reading development. There were 16 boys and 11 girls in each group. The average age for the WL group was 93.7 months and for the PSB group 94.4 months.

The average reading comprehension score for the WL group (n=27) was grade 4.2 (*T*-score = 57) and for the PSB group (n=27) was grade 4.3 (*T*-score = 58).

Instruments and Procedures

Testing was conducted while the students were in the final six weeks of grade 2. In an initial session the students of each classroom as a group were given the comprehension subtest of the Gates-MacGinitie Reading Test (Level B). In two classrooms the students were administered this test by their teacher, and in the three remaining classrooms the test was administered by the first author. All students received this test in the standard administration format. The remaining three tasks were administered individually by the first author in a separate session. Each student was told that he or she was going to read some words and stories and be asked some questions about the stories. The students were also informed that a tape-recorder was being used to help the researcher remember what they said.

Word identification. To determine if context was differentially helpful in the process of word identification to the students from the two instructional groups, 40 words were selected and presented in two conditions—in isolation and with surrounding context. Twenty words were selected from the Word Recognition test of the Brigance Diagnostic Comprehensive Inventory of Basic Skills (Brigance, 1983), high-frequency words that are composed of the phonetic and orthographic features taught in grades 2 and 3. Of these 20 words, 10 were from the grade 2 level and 10 from the grade 3 level. The remaining 20 words were selected from a revised Dolch Basic Word List (Elley, Croft, & Cowie, 1977). Ten words were selected from a list of 100 of the most frequent words, and 10 words were selected from the second most frequent 100 words

occurring in basal readers. The words in isolation (without context) were presented in four lists; in the in-context format each word was underlined and placed in a discrete sentence that was contextually unrelated to the other sentences (e.g., The family lived in a big *house*). In 85% of the sentences the target word was placed so that an equal number or more words in the sentences preceded the target word. All words used in constructing the sentences were found in a grade 2 vocabulary list (Early, Cooper, & Santeusanio, 1979). On the in-context task students were asked to tell the examiner what the underlined words were. They were not asked to read the whole sentence but were not discouraged if they did so.

Grapheme substitution passage. This passage was selected from the experimental tasks used by Hong-Kim and Goetz (1994) to measure students' relative dependence on graphic and contextual information. The passage was a story consisting of 15 sentences with an end-of-grade-2 difficulty level. In each sentence one word was changed by substituting a single letter (e.g., She dressed warmly in her goat-coat). Each change produced another real word, and each of the letters chosen produced words that violated the original meaning of the sentences. Neither the altered nor the original words was repeated in the other sentences of the passage. The purpose of this task was to investigate whether group differences existed in the identification of the words through their graphic cues versus their contextual cues. After reading the passage aloud, the students were asked 10 comprehension questions. Each of the 15 words was coded as *altered* if it was read as the changed word, *original* if it was read as the word consistent with the context, or *error* if an unrelated word was identified.

Cloze passage. In the cloze passage students were asked to determine the identity of deleted words (Collins & Cheek, 1993). Because no graphic cues were available, this task was used to explore group differences in word prediction skills. The passage was selected from the Alberta Diagnostic Reading Program (Alberta Education, Student Evaluation Branch, 1986). This passage was written at a difficulty level consistent with the end of grade 2 and was created by deleting every fifth word. At the end of the passage, 10 comprehension questions were presented. The students were asked to read the passage aloud and orally give the missing words. To ensure that all students were aware of the task requirements, the experimenter read the two beginning sentences and orally filled in the first two deleted words. The students were then asked if they knew how to do the task and to begin where the experimenter had stopped. A 10-question comprehension test was administered after completion of the passage.

Order of Task Presentation

To guard against sequencing effects where the order of the three tasks could influence performance through practice effects, an incomplete counterbalancing technique was used (Christensen, 1991). Four orders were created so that each of the tasks appeared an equal number of times in each ordinal position and each task preceded and followed every other task an equal number of times. Two of the orders were repeated 13 times and two 14 times.

Results

Independent *t*-tests for group mean differences were conducted on the eight dependent measures. Results of t-tests are presented in Table 1. On the word identification tasks no significant differences were found between the mean number of correct responses in either the isolated or the context conditions.

Responses for the target words in the grapheme substitution passage were coded into three groups—original words, altered words, and errors (Hong-Kim & Goetz, 1994). When a child produced a spontaneous correction, it was the first response that was scored. For example, if in the sentence "She dressed warmly in her goat" the child responded with the altered word goat and then spontaneously self-corrected and answered "coat," the first response, goat, was scored as an altered response. We believed that the child's first response more accurately represented the process of word identification versus comprehension (Stanovich, 1994). Spontaneous corrections occurred 6% of the time in the responses of WL students and 7% of the time in the responses of PSB students. The number of altered words, original words, errors, and the number of comprehension questions correctly answered were compared for each group and no statistical differences were noted (see Table 1).

On the cloze task the students were asked to predict orally 24 missing words from sentences in a story. The WL group had a larger mean number of correct responses in this category than did the skills group ($p<.01$).

Because of the similar performance between the two groups for seven of the eight variables, correlations were conducted with groups collapsed. The results of this analysis are presented in Table 2. Significant correlations were found between the majority of measures. Because of the number of tests of significance conducted, the level for significance was set at $p<.01$. The Gates MacGinitie comprehension score was significantly correlated with words in isolation ($r=.4998$, $p<.01$), words in context ($r=.5146$, $p<.01$), cloze ($r=.5913$, $p<.01$), and altered words ($r=.3924$, $p<.01$) showing an overall relationship between the dependent variables and reading ability. The ability to read words in isolation was significantly correlated with ability to read words in context

Table 1
Results of Independent T-tests Conducted on Each of the Dependent Measures

Measure	*Skills Means*	*W-L Means*	*Total*	*t-value*	*p*
Words in isolation	33.7	35.26	40	–1.23	.223
Words in context	34.41	36.19	40	–1.56	.124
Altered	10.78	10.85	15	–0.13	.899
Original	3.26	2.96		0.64	.522
Errors	.85	1.26		–1.23	.223
Passage comprehension	6.15	6.70	10	–1.17	.248
Cloze	9.44	12.44	24	–2.88	.006**
Passage comprehension	5.94	6.81	10	–1.65	.104

**$p<.01$.

Table 2
Correlation Between Student Scores

	Gates	*Words*	*Context*	*Cloze*	*Altered*
Gates					
Words	.4998**				
Context	.5146**	.8703**			
Cloze	.5913**	.6443**	.6284**		
Altered	.3924**	.5487**	.3025	.3019	
Original	−.2771	−.1398	−.0047	−.1561	−.7630**

**$p<.01$.

($r=.8703$, $p<.01$), and performance on cloze was related to both words in isolation ($r=.6443$, $p<.01$) and words in context ($r=6284$, $p<.01$). There was a strong negative correlation between original and altered words on the grapheme substitution passage ($r=-.7630$, $p<.01$).

Discussion

The purpose of this study was to determine if there were significant differences in word recognition skills depending on whether students were instructed in a WL or a PSB classroom. With the exception of the cloze activity no significant mean differences were found. Cloze activities are used in the WL classrooms as an explicit instructional tool but not in the PSB classrooms. Therefore, the significant findings for this variable may reflect the effect specific instructional techniques have on students' performance. Cloze activities in part reflect the ability of readers to use prediction as they read. Thus, although word recognition was a part of this task, so was prediction, and students from the WL classrooms demonstrated significantly better prediction abilities. There were no other converging findings indicating that differences in instructional practice produced differences in the type of information used in word recognition.

There were no significant differences between the two groups on the remaining word identification tasks. The similar performance of both groups on the words in isolation condition demonstrated equal competence in the use of graphic information in word identification. The semantic information provided in the words-in-context condition did not provide a significant advantage to either group in the facilitation of word identification. Similarly, in the grapheme substitution passage where one letter of a word in each sentence was changed (i.e., coat-goat), differences between the students in the two groups for use of graphic (altered) or contextual information (original) were not significant. The significant correlation between the identification of altered or original words suggests that there was an overall preference by students in both groups to identify the words as altered. This result suggests that the students relied predominantly on graphic information over contextual information for word recognition for this task.

The major purpose of the study was to determine whether students from WL classrooms would differ in word recognition abilities compared with those from PSB classrooms. The results suggest that few overall differences existed.

Students taught in a program focused on using contextual information (WL) performed significantly better on only one task measuring use of this information for word identification than students taught in a program that focused on graphic information (PSB). As well, students taught in the PSB approach did not use graphic information significantly more for word identification than students taught in a WL approach. In terms of word identification, the performance of the two groups was more similar than different.

These findings are consistent with two streams of research. The first indicates that once students become proficient decoders, they tend to rely more on graphic than contextual information for word identification (Stanovich, Cunningham, & Feeman, 1984; Tunmer & Chapman, 1996). The students in this study were becoming proficient readers; students below reading grade 2.2 were not included in this study for ethical reasons.

Alternatively, there is also evidence that indicates teachers adjust their reading programs and integrate aspects of each approach. Stanovich (1994) stated that teachers are pragmatists and that they teach what works. By its nature pragmatism opposes rigidity in philosophical orientation and allows flexibility in teachers' choices of instructional tools. This observation is consistent with the findings of Pressley and Rankin (1994) where the WL teachers in their sample incorporated a number of teaching practices that included the direct instruction of letter-sound correspondences. Although the WL teachers indicated that they generally taught discrete skills in the context of continuous text, they also taught discrete skills in isolation, especially for weak readers. The converse was also true where supporters of direct phonic instruction used context as a vehicle for the teaching of specific phonetic strategies (Pressley & Rankin, 1994). Similarities in classroom practices were also noted by Sacks and Mergendoller (1997) in their examination of the relationship between a teacher's theoretical approach and student achievement. They found many similarities between WL and PSB classrooms, including type of classroom activities and time spent involved in various activities, although they did note that "there were subtle, and meaningful differences in the classroom literacy experiences of students" (p. 734).

Finding "pure" representations of each orientation appears to be increasingly difficult as teachers incorporate both approaches into classroom instruction. Although the teachers' observed practices in this study reflected their stated approach to reading, there may have been more similarities between the practices in WL and PSB classrooms than were apparent in classroom observations. Because the only difference between the two groups of students was in the cloze activity, the teachers in this study appear to have taught to the individual needs of the students rather than limiting instructional practices to those consistent with only one approach.

Teachers sensitive to the individual learning needs of their students encourage strategy development and implementation techniques that encompass both approaches to reading. Mixed or eclectic programs are emerging that provide the best of both the traditional and WL approaches (Stahl et al., 1994). Mixed or eclectic programs are viewed as providing the best of both the traditional and WL approaches (Mather, 1992; Stahl et al., 1994).

The results of this study indicate few overall differences between the WL and PSB programs with respect to word recognition skills, and point to the need for further work exploring the elements of effective classroom practice. Perhaps the time has come to take the next step and address how WL and PSB approaches can be combined to create a powerful eclectic approach. Then the question changes from Which is the most effective program? to What are the effective aspects of each program? We need to move ahead to research effective approaches to reading instruction rather than remaining static and the continuing debate that has persisted for 30 years.

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Panel Discussion

The opening panel discussion at the Literacy in the 21st Century Research Conference focused on workplace literacy. Carolyn Dieleman from Advanced Education and Career Development organized this session to present the perspectives of three key players in workplace literacy—business, government, and university. The article in this section presents highlights of this panel discussion based on presentations and conference notes provided by participants on the panel.

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Workplace Literacy: Business, Government, and Academic Perspectives

Compilation and comments: *Grace Malicky*

Moderator: *Carolyn Dieleman*
Advanced Education and Career Development, Government of Alberta

Panelists: *Lloyd Campbell*
Senior Advisor, Education and Development, Syncrude Canada Ltd.

Bill Wong
Director of Evaluation, Advanced Education and Career Development, Government of Alberta

Harvey Krahn
Professor, Department of Sociology, University of Alberta

In her opening remarks Carolyn Dieleman explained that workplace literacy is a relatively new field growing out of increased awareness of literacy in general as well as an increased emphasis in our society on the "bottom line." Workplace literacy has been an active field in Alberta since 1988 when Syncrude introduced "Effective Reading in Context," followed by programs offered in Lethbridge, Calgary, and Edmonton.

Workplace literacy programs in Alberta have generally been offered either as longer-term programs by large companies or shorter-term programs by smaller companies. In either case employers have a history of funding programs themselves, sometimes in cooperation with unions, rather than seeking government support. Some of the bigger companies that have offered programs include the Calgary Herald, Flint Engineering, Imperial Oil, Husky Oil, and Alberta Power.

At the national level approximately 500 workplace literacy programs have been developed over the past decade. According to Dieleman, the National Literacy Secretariat has been instrumental in igniting interest and support for workplace literacy across Canada. In his book *Workplace Education: The Changing Landscape* Taylor (1997) wrote about the profound changes occurring in the Canadian work environment:

> As firms search for continuous improvements in quality and greater flexibility to respond to market demands, workplace education has taken a new place in the landscape. Similarly, as technology change creates new skills and reroutes the flow of information, basic skills training is now being viewed as a critical force in the learning panorama. In this time of instability, workers are finding that they do not have the necessary skills needed to remain in the current workplace and are, therefore, becoming life long learners. In short, workplace education has

> become recognized as a tool for personal, organizational and economic development. (p. viii)

Although literacy practitioners recognize the benefits of workplace programs, employers sometimes ask about the return on investment. To address this, Dieleman referred to a document published by the Conference Board of Canada in August 1997 entitled *The Economic Benefits of Improving Literacy Skills in the Workplace* (Bloom, Burrows, LaFleur, & Squires, 1997). Some examples of benefits cited include increased ability to handle training on the job, better team performance, improved labor-management relations, increased quality, improved results in job-specific training/quicker training results, reduced time per task, increased output of products and services, reduced error rate, better health and safety records, reduced waste, increased retention of employees, increased profitability, increased customer retention, reduced absenteeism, and success in transferring employees.

Syncrude Canada's Workplace Literacy Program

Syncrude Canada Ltd. was not only the first company in Alberta to develop a workplace literacy program, but theirs has been recognized as one of the best, receiving the Governor General's Award for Literacy in 1995. Lloyd Campbell introduced the company's workplace literacy program by noting that the Athabasca oil sands deposit has the potential for 300 billion barrels of oil and that Syncrude has introduced new technology for extracting oil from the oil sands. With this new technology has come what Campbell refers to as the company's "new common sense," encouraging employees to think and act like owners.

The Effective Reading in Context (ERIC) program was conceived as a response to a need identified by Syncrude. The company wished to move toward increased participative management, but was concerned about the shrinking pool of skilled workers, the trend toward multiskilling of workers, and the need to remain competitive in the global marketplace. ERIC is designed to provide reading strategy development for workers at all levels in the company. Tradespeople and operators receive literacy experience and exposure to ensure that they maintain their literacy skills, and planners and office staff fine-tune their reading skills. Because of increased literacy demands and awareness of the needs of management, engineers, and other professionals, the program has been extended to enhance development of their technical and academic skills as well.

Recently Syncrude has extended ERIC to include a numeracy component: Working in Numeracy or WIN. As with ERIC, all components of this program were developed with the assistance of employees, all reflect workplace materials, and although the program concepts are integrated, they may also be taught as stand-alone skills.

According to Campbell, the need for workplace literacy programs at Syncrude was confirmed in 1996 (Statistics Canada, 1996) by results on the International Adult Literacy Survey (IALS).[1] Data for prose literacy of all Canadians aged 16 and over revealed that 22% of Canadian adults were found to be functioning at Level 1 in literacy skills development. Individuals at this level have great difficulty with literacy, have few basic skills available to them to

decode and work with text, and are generally aware that they have problems. Individuals at Level 2 (26% of Canadians) have limited skills. They can read only simple material that is clearly presented and can engage in tasks that are not too complex. This category includes people who would have trouble learning new skills requiring higher literacy. Thirty-two percent of Canadians are at Level 3; they possess adequate basic skills for working in many situations. Individuals at levels 4 and 5 (20% of Canadians) have a wide range of literacy skills and can handle new reading challenges.

Campbell views Syncrude's workplace literacy program as having benefits for employees, the company, and the community. Benefits for the employees and company include increased skills of employees, enhanced confidence of employees as workers and learners, increased productivity, national and provincial recognition, and development of a program consistent with corporate vision and values. In relation to the community, Syncrude has established links with the local community college and volunteer literacy program and in addition has made the ERIC program accessible to other employers.

Campbell identified several areas for further research on workplace literacy including the need to investigate participants' perceptions of the impacts (cost and benefits) of workplace essential skills training in different programs. He also recommended "best-practices" studies of organizations that make effective use of the literacy skills of employees so that skills are not in danger of being lost. Other questions revolved around the impact of computerization on workplace literacy requirements, the role of essential skills training in the apprenticeship process, and ways to encourage participation in workplace literacy programs.

Implications of the IALS for the Labor Market

Bill Wong from Advanced Education and Career Development highlighted implications from the IALS report for the labor market. Findings indicate that individuals with poor literacy skills have reduced employment opportunities; however, from a workplace literacy point of view, a more important finding, according to Wong, is that many individuals with low literacy skills are in the workplace. Three quarters of individuals at Level 1 on the prose scale and nine out of 10 of those at Level 2 who are in the labor force are employed.

Another significant finding is that individuals at lower literacy levels are less likely to be upgrading their skills than those at the higher levels. Individuals at higher levels are more likely to participate in all aspects of adult education and training. Among Canadians between the ages of 16 and 65, only one in five (21%) of those who were at prose Level 1 had participated in adult education or training in the past year, whereas almost three in five (58%) of those at Level 4/5 had participated.

The IALS results also have implications for employers; one important characteristic of a good job is that it should provide opportunities to maintain and enhance literacy skills. Because a large proportion of one's reading is done at work, the report states that "Jobs may cause literacy as much as they require it" (Statistics Canada, 1996, p. 55). The IALS data show that opportunities to use literacy skills in the workplace vary substantially among occupations. For example, 90% of managers and 95% of professionals read letters or memos at

least once a week, compared with 58% of machine operators and 46% of those in elementary occupations. Similarly, 83% of managers and 85% of professionals read reports, articles, magazines, or journals at least once a week, compared with 42% of service workers and 30% of skilled craft workers.

International comparisons are striking. There are three times as many skilled craft workers at Level 1 in Canada as in Germany, the Netherlands, and Sweden (prose and document scales), and there are more than twice as many Canadian machine operators or assemblers at Level 1 (document and quantitative scales) than workers in the same occupation in Germany and the Netherlands. These differences are also reflected in the findings on workplace reading tasks. Forty-three percent of Canadian skilled craft workers read letters or memos at work at least once a week, compared with 69% of their German counterparts. Thirty-two percent of Canadian machine operators read manuals or reference books at work at least once a week, whereas the corresponding figure is 51% in Germany.

Because the literacy demands placed on some individuals in the workplace are minimal, it is not surprising that so many people with low literacy skills do not perceive a problem. Eighty-seven percent of people at Level 2 and 49% of those at Level 1 rated their reading skills for work as good or excellent. Forty-four percent of those at Level 1 on the prose scale said their writing skills for work were good or excellent. Their skills may possibly be good or excellent for the work they are currently doing, but these individuals are unlikely to be able to cope with changing requirements and new technology. People are unlikely to take action to improve their literacy skills if they are unaware of the need for improvement.

From an Advanced Education and Career Development perspective, Wong indicated that the major concern should perhaps be with retention and transferability of skills from one work context to another. He posed a number of questions: What are the factors (individual, training-related, work organization) that increase transferability? What are the factors (both on and off the job) that maximize retention of literacy skills? How well do existing programs provide opportunities for learners to exercise and consolidate new or improved skills on the job? Wong also recommended research on the role of unions in basic skills programs, on the nature, role, and impact of needs analysis on workplace literacy programs, and on how realistic employers are about their employees' skill levels in companies without basic skills programs.

Literacy Utilization in Canadian Workplaces

Harvey Krahn reported on research on IALS data completed by him and Graham Lowe (Krahn & Lowe, in press). The underlying concern of most literacy research is on literacy deficits and on the detrimental impact of an insufficient supply of highly literate workers on the economy. In contrast, Krahn and Lowe are concerned with what they call a literacy surplus—individuals who have high levels of literacy and numeracy in jobs that require few skills. When literacy is viewed as a form of human capital, Krahn and Lowe ask whether this literacy surplus will result in a loss in human capital.

Data on the use of literacy skills on the job reveal that between 20% and 50% of employed Canadians rarely or never read on the job. Between 30% and 60%

rarely or never write on the job, and approximately 40% rarely or never do mathematical operations on the job. Because only approximately one third of employed Canadians were found to be functioning at Levels 1 and 2 on the IALS (prose, document, quantitative), it is obvious that a significant number of people (up to 20%) with higher levels of literacy are in jobs that offer few opportunities for use of these skills.

The focus of Krahn and Lowe's analysis was on the degree of match or mismatch between literacy skills and literacy use by employed Canadians. They identified five categories, three involving a match between literacy skills and use (low literacy skills/low use; medium literacy skills/medium use; high literacy skills/high use). The other two categories reflected a mismatch. A literacy deficit was evident when individuals with low literacy skills were employed in high-use jobs; a literacy surplus occurred when highly skilled workers were in jobs where they had few opportunities to use their skills.

The number of individuals in each category was calculated and results for document literacy revealed that

> about one in six (17%) employed Canadians had low document literacy skills and were in jobs that roughly matched their skill levels. One third (33%) were in the medium-medium category, whereas almost one quarter (24%) had high document literacy skills and were in jobs that required such skills. Thus about three quarters of employed Canadians appear to be in a "matched" labor market position, employed in jobs that take advantage of their document literacy skills. The remaining 26% are "mismatched." (Krahn, 1997, p. 19)

When the mismatched categories were examined for document literacy, there was more evidence of literacy surplus than deficit. Only 5% of employed Canadians were classified as overemployed, whereas 21% were underemployed. On prose literacy there was approximately a 3.5 to 1 ratio of literacy surplus to literacy deficit, and for quantitative literacy the ratio was approximately 2 to 1.

Although difficult to prove with cross-sectional data, Krahn and Lowe's analysis provided provocative evidence that workers who spent longer periods of time in low-literacy use jobs may, controlling everything else, exhibit lower literacy skills. This raises the possibility that these workers have lost some skills.

One implication of this research is the need for employers to upgrade jobs as well as literacy skills of employees. The goal should be to aim for more employed Canadians in the high-high category of literacy skill and use. According to Krahn (1997), the central question is:

> how to upgrade or enskill the Canadian labor market. How do we encourage Canadian employers to create jobs at the upper end of the skill continuum and to take greater advantage of the skills their employees bring to the workplace? What incentives are needed to entice knowledge-intensive firms to set up [in] Canada, rather than elsewhere? ... In short, how do we better utilize our current stocks of human capital, thus ensuring that it is not transferred or lost outright. (p. 21)

Synthesis and Comments

All three panelists in this discussion referred to and built on the findings of the International Adult Literacy Survey. However, literacy researchers are far from unanimous in their support of the concept of literacy that served as the basis of the study or of the survey instrument used (Graff, 1997; Jones, 1997; Street, 1997). The major disagreement involves the extent to which IALS reflects a cognitive, decontextualized model of literacy. Although the validity of the results has been questioned by those who hold a more contextualized view, there is no denying that the study has kept literacy in the forefront of public attention and has led to increased funding of literacy by government and business.

From their reading of the results of IALS, all three panelists emphasized that both employers and employees have important roles to play in literacy development and maintenance. It is not just a matter of workers developing more adequate literacy skills to fulfill the needs of the economy. Employers also have a responsibility to ensure that jobs available to employees require literacy use consistent with skills brought to the workplace. Workplace literacy means providing basic literacy programs for those in need of skill development as well as creating more jobs at the upper end of the skills continuum.

Some educators question the motives of employers in workplace literacy programs. Are employers concerned about the well-being and skill development of employees, or are they primarily concerned with the bottom line? As with all literacy programs there is a potential for both positive and negative outcomes. Literacy is a two-edged sword—it can be used for social control or it can be used for empowerment of individuals (Graff, 1987). The best workplace literacy programs are those designed to meet the needs and goals of both employees and employers.

Note

1. The International Adult Literacy Survey was a seven-country initiative conducted in the fall of 1994. Its goal was to create comparable literacy profiles across national, linguistic and cultural boundaries. An assessment instrument developed by Statistics Canada for the study included three scales to measure prose, document and quantitative literacy.

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Research Notes: Guidelines

The *Note* should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the *Note* could be either a specific study or inquiry or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a *Note* is 1,000 words (about 4 double-spaced pages in standard 12-point type), excluding references and one or two tables or graphs. To encourage communication between researchers, authors of *Research Notes* are asked to provide contact information such as e-mail, fax, and/or telephone numbers for publication with each *Note*. No abstract is required, but in all other respects the usual **ajer** guidelines for manuscripts should be observed.

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Learning to Use the Internet: A Study of Teacher Learning Through Collaborative Research Partnerships

Research on the implementation of new technologies in teaching indicates that success with innovation is dependent on support for teacher learning and on teachers' positive attitudes toward the innovation (Clement, 1981; Woodrow, 1991). Teachers must perceive a need for using the innovation in their teaching, and they need to become comfortable with the innovation and confident in using it (Coletti & Russell, 1988; Fuller, 1969; Loucks & Zigarmi, 1981; Wiburg, 1991). Teachers' implementation of Internet use needs to be supported with time for and access to training that is meaningful and substantive, with administrative support, and with collegial sharing throughout the learning process (Budin, 1991; Hack & Smey, 1997; Honey & McMillan, 1993; Woodrow, 1991). Teachers' willingness to change traditional conceptions of teaching and learning also is imperative to success with Internet use (Gallo & Horton, 1994; Hack & Smey, 1997).

The study of teacher learning described here is the second phase in a longitudinal study investigating Internet use in Alberta schools. In Phase One (winter 1997), case studies were conducted in six schools in and around Edmonton. The focus of these initial case studies was on how schools use the Internet, how teachers learn to use it, and what educators and parents think about its value. The teachers in that study were excited by the potential of the Internet, but were also often overwhelmed and frustrated by its vastness and complexity.

Research Problem and Design

Phase Two of the research is examining more closely how teachers learn about and make use of the Internet as an instructional tool. Six collaborative research partnerships were established in the Phase One case study schools. Teachers who were experienced Internet users were partnered with graduate research assistants trained in the use of search engines and search strategies by the co-investigators prior to their contact with the schools. The nature of the collaborative projects was negotiated between the partners within two broad

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parameters. The partners would spend about 30 hours together over a three-month period and would focus on learning about and using the Internet.

The projects carried out by the partnerships varied. For example, in the elementary schools one partnership set up an Internet club with grade 4 to 6 students while another designed a grade 2 science unit on exploring liquids. In a junior high school the partners had students locate Internet websites on the *Titanic* as part of their grade 8 novel study, and in a high school the partners planned online units in grade 11 Religious Studies and Social Studies.

Data Collection and Analysis

Data were collected from September to December. Initially the graduate students met with their teacher partners to share their backgrounds and interests and to decide on a learning project they could do together. The graduate student partner followed the teacher's direction and provided assistance, support, and feedback in whatever ways the teacher preferred. The graduate students collected data through interviews and through field notes based on conversations and activities undertaken in the partnership. The partners also kept an online reflective journal, which they shared with each other and with the co-investigators. The journal entries were used as a record of and a catalyst for discussion and planning. During the study the partners explored their personal histories of learning to use technology and their preferred learning approaches. A content analysis approach is being used for data analysis.

Initial Findings

Reported here are the initial findings related to teachers' learning including their motivations for getting started on the Internet, their preferences for learning to use the Internet, factors supporting their learning, and factors hindering their learning.

Teachers in this study were motivated by curiosity about the Internet and the desire to learn about new approaches to teaching as well as by pressures from the media, school administration, job demands and student interest. The teachers' initial experiences with the Internet were varied, as were their personal preferences for how best to learn to use it. Some preferred to learn on their own, whereas others preferred to learn with other people. Those who preferred to work with others attended inservices, worked with a colleague mentor, and learned from their students. Those who were primarily self-taught felt that the most beneficial learning experiences occurred through trial and error, exploration, and professional reading. However, regardless of their preferred learning style, the teachers all reported needing time alone to learn as well as time to share with colleagues.

The following factors assisted learning: administrative, technical, and parental support; collegial sharing; home access to the Internet; being able to learn in the context of something relevant; and having a positive attitude toward change. Other factors hindered learning. For example, appropriate technology was not always accessible or working properly; there was little time for learning in teachers' daily lives; and inservicing was not always suitable to teachers' needs. In addition, some administrators and colleagues were skeptical about the value of the Internet and questioned teachers' spending time learning about it.

These findings are consistent with the research literature on teachers' implementation of new technologies. Teachers' use of the Internet is dependent on their attitudes toward the Internet as an instructional tool and their willingness to restructure their classes and rethink their approach to teaching. However, teachers require time as well as ongoing training and support in order to learn how to use the Internet and to incorporate it into teaching (Gallo & Horton, 1994; Gibson & Oberg, 1997; Honey & McMillan, 1993). The partnership approach to teacher learning, as exemplified in this phase of the study, provides the kind of teacher support and encouragement that is essential to incorporating an innovation into teaching.

Alberta Education (1997) has mandated the integration of computer technologies in the core subject areas by the year 2000. The initial findings of our research, however, do not suggest that such an approach to the adoption of innovation will be successful. As Wiburg (1991) states,

> if we have learned anything from the low success rate of movements for educational innovation ... it is that changes cannot be dictated from the top. Effective schools research reinforces the idea that change is most easily carried out at the individual school site, and within that site it is the teacher who can make or break any new program. (p. 119)

Future Studies

The findings from Phases One and Two of this longitudinal Internet study have been used to guide Phase Three, which involves a provincewide survey focusing on how the Internet is being used to enhance learning in Alberta schools. The survey, to be administered in the spring of 1998, will provide baseline data about the successes and problems with the use of the Internet as an educational tool. Funding is being sought as well for a replication of the Phase Two partnership study in the context of mandated implementation.

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The Alberta Journal of Educational Research *Vol. XLIV, No. 2, Summer 1998, 242-244*

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Indigenous Languages and Literacy: At Risk in the 21st Century

There is a growing concern about the loss of Indigenous languages in Canada, because few children learn them as their mother tongue, the languages are being used for limited purposes, and those fluent and literate are increasingly older (Blair & Fredeen, 1995; Fredeen, 1992; Saskatchewan Indigenous Languages Committee, 1991). Unless serious efforts are made to reverse these trends, Indigenous languages are at great risk of disappearing, and Indigenous children will not have these languages as a way to access the cultural and linguistic capital of the Indigenous world.

Language policy that supports and promotes Indigenous languages is important, but policy alone is not sufficient; it needs to be accompanied by language planning. Planning for a language is a complicated endeavor and needs to be done in a comprehensive, collaborative, and in-depth manner. The conceptual framework for planning, as outlined by Fishman (1991, 1994), Haugen (1985), and Ruiz (1984, 1988, 1990, 1994), has been used worldwide. This language planning model outlines five important stages that fall within two main categories. One category, known as *status language planning*, deals with the value and role of language; and the other, known as *corpus planning*, deals more specifically with the language itself and the details of how to build, rejuvenate, record, and provide materials for this process. In order for a language plan to be effective, one aspect cannot take place without the other; in fact, they need to happen concurrently. A good language plan also includes a schedule, a system of implementation, and a way to evaluate what is happening. The stages within these two categories include policy formulation, codification, elaboration, implementation, and evaluation.

The Study

The purpose of this study was to analyze existing language policies and the implications of these policies for the practices of language and literacy education in selected communities in northern Saskatchewan. It included a cross-section of Aboriginal languages and dialects. The Cree communities surveyed were Stanley Mission (TH dialect), Cumberland House (N dialect), and Red Earth (Y dialect). The Dene communities were Black Lake (T dialect) and LaLoche (T dialect), and the Dakota community of Wahpeton. The research design included interviews, observations in schools and communities, and an examination of policy documents. Seventy individuals were interviewed including directors of education, principals, designated Indigenous language

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teachers, Indigenous culture teachers, curriculum developers, guidance counselors, and bilingual teachers.

Findings and Implications

The research findings were mapped onto Fishman's (1990, 1991) Graded Intergenerational Disruptive Scale for Threatened Languages. This scale "gives a guide to how far a minority language is threatened and disrupted. The higher the number on the scale the more a language is threatened" (Baker, 1993, p. 57). This scale can also be used as a guide for planning and setting priorities in a community struggling to maintain the language. The following summarizes research findings for the six Indigenous language communities involved in the study.

Stage 8: This is the stage of language loss where only a few speakers of the language remain, which seems to reflect the case of the Wahpeton community. This is the most difficult stage, and a great deal of effort will need to go into language retrieval. It is important at this stage to record the language for later possible reconstruction. A community at this stage needs to start with ideological clarification, reestablish linguistic norms, use linguists' and Elders' expertise, implement their chosen code, solicit commitment, and make great effort to create a movement of support and concern.

Stage 7. The minority language is used by the older and not the younger generation, as is the case in Cumberland House. Pockets of linguistic resources are available, and if the community, through comprehensive goals clarification, decides that language retrieval is important, a full-scale effort in home, school, and community will be required. Special events alone will not do. Language planning needs to connect with daily family socialization patterns and ensure that intergenerational language transmission is occurring. The role that Elders can play here is crucial.

Stage 6. The minority language is passed on from generation to generation and used in the community. However, little else has been done to develop a wider range of contexts for language and literacy development. If this situation continues, it is little more than a matter of time until the language slips to Stage 7. This appears to be the case in communities such as Stanley Mission and LaLoche. The language is still spoken by children, but this is changing quickly. In these communities it is essential that the long-term goals are clarified and comprehensive language planning initiated. There is a need to support family and community intergenerational continuity through engineering a plan that focuses on family, neighborhood, and community building. This plan should draw on community strengths and conserve the existing linguistic resources while working toward extending them.

Stage 5. The community members are fluent in the mother tongue and have some degree of literacy in the minority language. Black Lake and Red Earth appear to be at this stage. In Black Lake the community members all speak Dene. A small number of people are literate in syllabics, and the Dene immersion program is the first school literacy effort. In Red Earth Cree is the dominant language among all generations. A few Elders are able to read and write in Cree, and they are beginning to look at bilingual and intensive Cree program options for their primary classrooms. In these cases there is a need to

add variety to the learners' repertoire from outside the familiar family and community situations. It is important to access more formal varieties and tap into the richness of language at events such as religious ceremonies or traditional practices. The range of support for literacy is important, and intergenerational language literacy activities are extremely valuable.

As far as could be determined by this research, the remaining four stages are not in existence in a complete form in a Saskatchewan Aboriginal community. This research has reinforced that of Foster (1982), the Assembly of First Nations (1992), Tschanz (1980), Burnaby (1985), Fettes (1992), and the Government of Canada (1990), which suggests that in order to save the Indigenous languages in Canada from possible extinction, action must be taken quickly. This is an enormous task, but with comprehensive planning and adequate financial support these languages can be saved.

Note

For complete research findings see Blair (1997).

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The Wholeness of the Individual: Linking Literacy and Health through Participatory Education

> Health doesn't just cover physical health. It covers mental and spiritual health. It is the wholeness of the individual. (Women's health group)

In 1996 a women's literacy and health project was initiated at an adult learning center in Edmonton. The main purpose of the project was to develop a participatory education program that integrates literacy development with health promotion. The research reported in these notes focused on women's reasons for participating in the project and on the effects of their participation. As research is still in progress, these notes report on initial findings.

Literacy, Health, and Participatory Education

Studies such as the International Adult Literacy Survey (Statistics Canada, 1996) have raised awareness about the incidence of low literacy among adults in Canada. Often links between low literacy and unsatisfactory health are made in relation to misreading medication labels or other instructions. Producing health information in clear language is a welcome response to this issue. However, the links between low literacy and poor health go well beyond inability to read instructions.

Income is the single most important determinant of health (Federal, Provincial and Territorial Advisory Committee on Population Health, 1994), and income is related to literacy (Statistics Canada, 1996). Adults with low literacy have fewer options for adequately paid employment than those with higher levels of education; many live with incomes at or below the poverty line (National Anti-Poverty Organization, 1992). Low income is related to poor nutrition, smoking, stress, and lack of physical exercise as well as to lack of access to health information and resources (Ontario Public Health Association and Frontier College, 1989; Whitehead, 1991).

Nurturing a healthy population requires a societal commitment so that all people have adequate income and housing, opportunities for education and employment, healthy working conditions, and access to health services. However, individuals can take some control over their health and contribute to the well-being of their family, friends, and communities. This is one aim of health promotion.

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Although health promotion workers are becoming more aware of the incidence and effects of adult low literacy in Canada, health promotion tends to be directed toward people with adequate literacy and related education (Ontario Public Health Association and Frontier College, 1989). Print resources and mainstream educational methods do not reach people who do not read easily, who are not at ease in mainstream educational settings, or who have different background knowledge about health.

The Ontario Public Health Association and Frontier College (1989) recommended enabling people with low literacy skills to help themselves and suggested using participatory education approaches. In such approaches participants define their own learning needs and share and build knowledge together. Integrating health promotion into literacy programs builds on relationships established between participants and their teachers (World Education, 1996).

The Literacy and Health Program

The literacy and health program at the adult learning center was developed over two 10-12-week periods in the spring and fall of 1996. Topics identified by the participants and addressed during the program included stress, saying no, anger, diet and exercise, menopause, and living healthily on a low budget.

Fourteen women participated in program development, eight of whom took part in both sessions.[1] The "health group"—as the women called themselves—continued to meet during the winter of 1997 and then merged with the women's group at the centre. Six of the women who were in the health group continue in the center program at this time.

Objectives for the program included (a) helping women learn skills and strategies to access information and resources needed to make positive changes that can improve health; and (b) helping women to learn reading, writing, and related language strategies they can use to access, assess, and apply health information resources. This research was related to the first objective, in particular to whether participants made changes that can improve health.

Participants were interviewed at the beginning and end of the first period of program development and at the beginning of the second period. Interviews were focused on reasons for participating in the program, self-assessment of health, accessing information, changes in health practices, and response to the program. Toward the end of the second period the researcher presented themes from the interviews to the group of women and asked them to identify other issues that had arisen.

Follow-up interviews with five women who took part in the project were conducted in spring 1998, and three or four additional women will be interviewed, depending on their availability. Results of these follow-up interviews have yet to be analyzed.

Initial Findings

Information from the second and third interviews was compared with data from the first ones. Women's responses point to learning and change in diet and exercise, expressing anger, managing stress, self-assertion, sharing mutual support, and recognizing the links between health and social conditions.

Some women had been practicing healthy eating and exercise habits at the start of the program. Others named diet and/or exercise as topics of concern. At the end of the program some women said they had increased their exercise and had made changes in their diet, such as eating less fatty food.

When the program began women indicated that they recognized links between stress and health. After the program they indicated that they were learning about and getting better at coping with stress. They were also becoming more confident in asserting themselves. Learning to say no to others' demands was an important factor for them. Although saying no was still difficult, women reported that they were able to say no more often than at the start of the program. Learning to express anger and other emotions in healthy ways was also an important topic for most of the women. After the program a number said that they were committed to learning how to control their anger or to express it in ways that were not hurtful to others.

Women tended to discuss health in terms of their personal behaviors at the beginning of the program. Afterward they indicated a more conscious recognition of the links between health and low incomes. Women also placed high value on making connections with each other and sharing support with others in the group.

Conclusion

All the women who participated in the literacy and health project were living on low, fixed incomes. For various reasons a number of them did not have immediate options for increasing their income, and living with low income contributed to stress and other problems with health. Although an increased income would contribute to women's well-being, participating in the health project also had positive effects. The project provided important social support for the women who participated. According to some health experts, being part of a social support network may be as important to promoting health as reducing certain established risk factors (Federal, Provincial and Territorial Advisory Committee on Population Health, 1994). Through the project women also developed knowledge and skills to improve some aspects of their health and supported each other in making changes.

Note

1. The program was field tested in four other sites in 1996-1998. A handbook for the program will be published in summer 1998.

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The Alberta Journal of Educational Research

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Teacher Educators: Identities, Roles, and Influences on Teacher Education Reform

Alberta Journal of Educational Research
Theme Issue (Summer 2000)

Guest Editor: Ardra L. Cole

Faculties of education across Canada, throughout North America, and beyond are once again in the throes of teacher education reform. The complexity of this process is exacerbated by the range and diversity of individuals and institutions directly and indirectly involved in teacher education and by the ill-defined nature of the field of teacher education in general. Faculties of education employ full-time faculty as teacher educators; employ second educators from school boards as adjunct or clinical professors; hire people on contractually limited appointments to serve in a variety of roles; and utilize the services of school-based educators who serve as associate or cooperating teachers for preservice teacher candidates.

- What are the implications of this broad-based involvement for teacher education programs and their reform and for teacher education as a field?
- What are the influences of the multiple and diverse roles, identities, and commitments of those involved in teacher education on teacher education programs and their reform?

The questions noted above will be the focus of the theme issue. Articles will cohere around broad themes related to improving teacher education and addressing the challenges associated with the multiple and diverse identities of teacher educators.

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The Alberta Journal of Educational Research *Vol. XLIV, No. 3, Fall 1998, 249-250*

Editorial: Moving On, Carrying On

Those of you who read "A Note from the Editor" in our Spring 1998 issue will be surprised by the appearance of separate Summer and Fall issues this year. For various and happy reasons, we have been able to return to the publication of four separate issues in 1998 rather than publishing a combined Summer/Fall issue as planned and announced. Thus you are now reading the third of four issues in Volume 44. This issue will be followed in due course by the Winter 1998 issue, which will be edited by my successor Julia Ellis.

I am pleased to announce Julia's appointment as editor of **ajer**, effective July 1998. Dr. Ellis is an associate professor in the Department of Elementary Education at the University of Alberta. She has previously held appointments at the University of Toronto, OISE, the University of Lethbridge, and the University of British Columbia. Her earlier work was in educational psychology, but in recent years she has turned her attention to the areas of curriculum studies and qualitative research. Julia has been an active participant in Canadian and international educational research circles and will be known to many of you. Welcome, Julia!

As I move on from editing the work of others to a renewed focus on my own research and writing, I can't resist offering one or two reflections on the world of scholarly publishing as I see it after three years in the role of **ajer** editor. In the past three years, I have read well over 200 full-length manuscripts, worked with at least that many manuscript reviewers, and solicited a variety of research notes and book reviews. The majority of the authors have been Canadian, spanning all 10 provinces and about 50 institutions, with about 10% of authors from the United States and other countries. The good manuscripts have been very good, and it has been a pleasure to work with those authors—both experienced and new scholars—who have submitted well-written, substantial manuscripts.

But a surprising number of the submissions—also from both experienced and new scholars—have been less than good. Some would-be contributors fail to demonstrate that they can write (clearly) and/or that they have anything much to write about. The latter is often linked to a failure to demonstrate that they can read—to read, that is, the extant scholarly literature (sometimes published in **ajer**!) on the topic they themselves are writing about. Some aspiring authors apparently can't even read **ajer**'s manuscript guidelines. Too many studies are ill thought out, badly designed, perhaps too hastily conceived and executed. As a qualitative researcher myself, I have been saddened to see reports of so many small, superficial, "exploratory" studies on topics that have already been much explored, the territory by now well mapped. I have rejected without external review many manuscripts bearing the characteristics outlined above, particularly when those submissions come from established academics who should know better than to submit work of that quality to a journal of **ajer**'s international stature. I have been unwilling to impose on other colleagues the obligation to spend their own, all-too-scarce time reviewing such manuscripts.

It is an old lament, but depressingly true, I have found. In the press to publish or perish (if indeed that would be the result—we all know of many instances where it has not been), some academics and aspiring academics are much more interested in pumping out articles than in making a scholarly contribution; much more willing to "talk" about their work than to read anyone else's, however much it might inform their own; much keener to be published in a widely indexed and circulated journal like **ajer** than to support the journal by subscribing to it themselves or even doing an occasional manuscript review.

Fortunately for all of us, such individuals are not in the majority: there are many good citizens in our academic community. When I have sent obviously inadequate but promising manuscripts to reviewers, I have been equally surprised by the dedication most of those reviewers have shown in providing the author(s) with constructive, detailed suggestions for improvement. I am particularly grateful to **ajer**'s associate editor and consulting editors for their many contributions in this regard, and especially their responsiveness when I identify a would-be contributor as a new scholar. Through our concerted (editor—reviewers—author) efforts, many unpublishable manuscripts have eventually reached publication as legitimate contributions to scholarship in education. Seeing that happen is, of course, one of my greatest satisfactions as an editor.

Among the other pleasures of this job have been my acquaintance—often only by e-mail—with a growing network of colleagues in a wide range of specializations related to education. I have been very impressed, as I have mentioned, with the professionalism shown by some would-be contributors, by **ajer**'s editorial team, and by a very large proportion of those other individuals whom I have involved as reviewers. Peer review at its best is a genuine form of scholarly community, and I believe that, at its best, it has served **ajer**'s several hundred subscribers in more than 25 countries well.

Combining eclecticism with quality while working to extend **ajer**'s reach has always been our challenge. I believe that we at **ajer** do rise to meet that challenge. Thank you to all of you—consulting editors, associate editor, members of **ajer**'s operating team (all on our masthead), as well as reviewers, loyal subscribers, and funders—who make **ajer**'s contributions to scholarship in education possible. **ajer** carries on.

Beth Young
(Retiring!) Editor

The Alberta Journal of Educational Research *Vol. XLIV, No. 3, Fall 1998, 251-267*

Peter P. Grimmett
Simon Fraser University

Reconceptualizing the Practice of Teacher Preparation: On Not Throwing Out the Concurrent Model with the Reform Bathwater

In this article I call for a reconceptualization of practice in Canadian teacher preparation programs around the concurrent model. My criticism is not against consecutive programs per se, but against the American-influenced reform thinking that uncritically presumes the dominance of the consecutive model. I argue that teacher preparation must be located in collaborative partnerships between faculties of education and the field on the one hand, and between faculties of education and university faculties of arts and science on the other, and that such an arrangement calls for a reconceptualization of teacher preparation. I further argue that, provided faculties of education grasp the opportunity and reconceptualize both their mission and preparation programs in this way, Canadian teacher educators could lead the way in efforts to revitalize teacher preparation around the world. My purpose is twofold: to show how a reconceptualization of teacher preparation will involve partnerships around interdisciplinary study and teacher research in a reconceptualized concurrent preparation program bringing together discipline-based and practical knowledge, involving (a) the engagement of preservice teachers in action research into dilemmas of teaching, and (b) the rigorous integration of liberal arts and sciences with professional pedagogy.

Dans cet article, l'auteur affirme d'une part, qu'il est nécessaire de repenser la pratique dans les programmes de formation des enseignants au Canada et, d'autre part, que cette reconceptualisation doit se faire selon le modèle concurrent. Sa critique ne concerne pas tant les programmes consécutifs comme tels que le courant réformiste influencé par les États-Unis et qui accepte sans critique la dominance du modèle consécutif. L'auteur précise que la formation des enseignants doit se faire par le biais de partenariats entre les facultés d'éducation et les responsables des postes en salle de classe d'une part, et entre les facultés d'éducation et les facultés universitaires d'arts et de sciences d'autre part. Une telle entente implique une reconceptualisation de l'orientation des enseignants. L'auteur poursuit en maintenant que si les facultés d'éducation saisissent l'occasion et reconceptualisent ainsi leur mission et leurs programmes d'orientation, les formateurs d'enseignants au Canada seront en mesure de diriger les efforts qui visent à revitaliser la formation des enseignements de par le monde. L'article a un double objet: d'établir comment une reconceptualisation de la formation des enseignants impliquera des partenariats pluridisciplinaires et de la recherche par les enseignants sur un nouveau programme de préparation concurrent qui lierait les connaissances particulières des divers domaines aux connaissances pratiques. Ce programme reposerait sur l'engagement des enseignants en formation dans la recherche active sur les dilemmes en enseignement, et sur l'intégration rigoureuse des arts libéraux et des sciences à la pédagogie professionnelle.

Peter Grimmett is a professor in the Faculty of Education and co-director of the Institute for Studies in Teacher Education. His research interests focus at the preservice and inservice levels on the relationship between teachers' development of their craft and the processes of reflection, collegial consultation, and classroom-based action research. Recently he was a keynote speaker at international conferences on teacher education in Kansas City, USA; Lahti, Finland; Tel Aviv, Israel; and Ottawa, Canada.

Much of the reform rhetoric aimed at restructuring teacher preparation has tended to emphasize consecutive programs at the expense of the concurrent model. At the same time, this rhetoric has pressed teacher educators and policy-makers to introduce alternative approaches (e.g., collaborative and/or school-based programs, professional development schools, different grouping structures for practicum or field experience, etc.) into teacher preparation as a way of revitalizing its practice. To do so, however, without first addressing the larger philosophical issues embedded in efforts to restructure is to avoid the serious challenges currently facing higher education-based teacher preparation.

Tolstoy's story "The Three Questions" (Dunnigan, 1962) helps me to illuminate those challenges. The story goes like this. A king wanted three questions answered: What are the most important things to do in life? When is the right time to undertake them? and Who are the right (and wrong) people to deal with in so doing? But no one could address these questions to the king's satisfaction. So he disguised himself as a peasant and went into the woods to visit a wise old hermit whom he found digging a garden. Noticing the man's frailty, the king took over the digging and dug for hours, while the hermit said nothing. Then the king tended the wound of a suddenly appearing injured man. The king later learned that this stranger had tried to kill him but had been wounded by the king's soldiers. The king and the man became reconciled. Before leaving the king again asked the hermit his three questions. The hermit told him he had already been answered and explained:

> Had you not taken pity on my weakness yesterday and dug these beds for me, instead of turning back alone, that fellow would have assaulted you, and you would have regretted not staying with me. Therefore, the most important time was when you were digging the beds; I was the most important man; and the most important pursuit was to do good to me. And later when the man came running to us, the most important time was when you were taking care of him, for if you had not bound up his wound, he would have died without having made peace with you; therefore he was the most important man, and what you did for him was the most important deed. Remember then: there is only one important time—*Now*. And it is important because it is the only time we have dominion over ourselves; and the most important man is *he with whom you are*, for no one can know whether or not he will ever have dealings with any other man; and the most important pursuit is *to do good to him*, since it is for that purpose alone that man was sent into this life. (p. 88)

My article is essentially a statement addressing Tolstoy's three questions in the context of the practice of teaching and teacher preparation. Having addressed the questions, I then attempt to show one way teacher preparation can be reconceptualized to generate hope in its mission.

What Are the Most Important Things to Do?

Teaching is an occupation that requires careful attention to details; its practice is also accompanied by endemic uncertainty and doubt. One important thing to do, then, is to prepare teachers with a sense of hope that infuses their everyday treatment of students. Put differently, they would be encouraged to "live a teacher's life" (Sumara, 1996), not simply adding the practice of teaching to one's life, but beginning to live a life that includes teaching. Such a life is always

lived in relation to others, the world, and oneself. It is both an intellectual and a moral endeavor calling one to deal courageously with the dilemmas that accompany serious attempts to teach. One such dilemma is that it takes time and experience to realize that growth in students emerges unevenly, unpredictably, often haltingly (Hansen, 1995). Thus it is important to prepare teachers who can both commit themselves wholeheartedly to the immediate curriculum, pedagogical, and student-oriented concerns of a teaching-learning situation and be capable of reflecting in a manner that frees them from being captive to that pressing immediacy of teaching.

Another important aim of teacher preparation is to enculturate student teachers into the practice (as distinct from the profession) of teaching. Many of the current efforts (Holmes Group, 1986, and others) to improve teaching can be characterized as attempts to professionalize the occupation. They tend to socialize prospective teachers into the work force of the profession rather than facilitate their enculturation into the practice of teaching. This distinction is important because "professionals can discharge their duties without entertaining the possibility that their work might form part of their identity as persons" (Hansen, 1995, p. 146). I am not here suggesting that the profession is unimportant; rather, I am arguing for the prioritization of practice over profession when it comes to the preparation of teachers. Why? Because when teachers view themselves as members of a practice, they tap into a set of historically derived customs, norms, and principles that can guide them through difficult moments and help them understand that their actions need not be determined by their current situation.

Herein lies a delicate irony: the source of a teacher's professional identity must be the practice, not the occupation, of teaching. Hence I strongly suggest that an important thing to do in teacher preparation is to enculturate persons into the practice of teaching, as distinct from the current emphasis on socialization to the working profession.

When is the Right Time to Undertake Them?

I argue that there is no time like right now—in what Wideen (1995) describes as the current difficult, changing, and sometimes adverse conditions of teacher preparation—to do the important things of preparing student teachers with a sense of hope founded on living a teaching life and enculturating them into the practice of teaching. In other words, teacher educators must help prospective teachers to regard what they do as an attempt to engender possibilities in the world rather than as a reaction to circumstances frequently beyond their control. Teacher educators need to take hold of a similar conviction, one that enables them to work purposefully, patiently, and persistently with young people who will touch the future of society—that is, teach!

Who Are the Right (and Wrong) People to Deal With in so Doing?

The right people are teacher educators writ large; that is, university colleagues in the faculties of education, arts, and science, and colleagues in schools, those persons who indwell and shape the practice of teaching at whatever level, who believe "teaching to be potentially meaningful, as the way to instantiate one's desire to contribute to and engage with the world" (Hansen, 1995, p. 10). The wrong people are those who are unconcerned about their everyday treatment

of education students, those who conduct themselves in an execrably predictable and perfunctory manner, thereby avoiding the teacher's ultimate responsibility to benefit students (Jackson, 1968).

A Defining Moment for Teacher Preparation In Canada?

Many countries are currently seeking ways to restructure teacher preparation. England and Wales have led the way but others are not far behind. Imig (1995) recently suggested that the Republican Contract with America essentially aims at the reengineering of higher education. He saw certain events as foreshadowing tremendous problems in teacher preparation. For example, the State of Colorado has legislation in place mandating members of a faculty of education to undertake at least 15 hours per week in school classrooms. A further example lay in the move to place teacher licensure in the hands of local schools so that they can hire whomever they please, regardless of background and qualification. There is also conservative sponsorship of anticredential, alternative certification models for entry into teaching, strong support for school-based professional development programs, and concerted efforts to uncouple teacher salary advancement from the accumulation of university credits. These all constitute persistent threats to teacher preparation and reinforce an emerging view around the world that the future of higher education-based teacher preparation hangs in the balance. Thus teacher preparation currently appears to be more in a state of turmoil—indeed, in some countries under attack—than in a state of continuous improvement.

These developments are present in North America only in the United States; in Canada the state of affairs is different. As in the US, Canadian teacher preparation programs are disconnected from school reform efforts, but unlike US programs they are contained in a relatively limited number of institutions. This containment has proved advantageous in bringing about growing pressure points of restructuring that suggest some potential for future reconceptualization. Sheehan and Fullan (1995) report on how in British Columbia the creation of the College of Teachers and university colleges, together with provincewide curriculum reform, has acted as a catalyst for change and spawned numerous collaborative projects. In Ontario they note how the lengthening of teacher preparation, the creation of the Ontario College of Teachers, and the building of preservice-inservice links represent important steps forward. Moreover, the Learning Consortium at the Faculty of Education at the University of Toronto (FEUT) has many structural features (e.g., student cohorts, faculty team-teaching, clustered partner schools, a focus on educational reform, embedded inquiry, 150 of 300 days in focused field placements and internships) that Tom (1995) argues are vital for revamping teacher preparation. Sheehan and Fullan's (1995) focus was restricted to British Columbia and Ontario. Other provinces have also engaged in restructuring efforts designed to improve teacher preparation. In Alberta teacher educators in the preparation programs at the University of Calgary and Concordia University College have undertaken a reexamination of their purposes and practices in educating teachers. Similar attempts have also taken place in Saskatchewan at the Universities of Regina and Saskatchewan. However, despite considerable

debate and some action, Sheehan and Fullan (1995) maintain that there have been no significant breakthroughs in Canadian teacher preparation.

The situation in Canada is, therefore, different from that in many other countries and not without promise; however, this does not mean that the practice of teacher preparation here is unproblematic. Rather, it implies that we may have a little more time and opportunity to address the challenges that lie ahead in a world increasingly characterized by diversity, fragmentation, and economic rationalism. Indeed, the situation here could make it possible for Canadian teacher educators to lead the way in efforts to revitalize teacher preparation. Thus, building on Tolstoy's story, I argue that for teacher preparation to find itself and generate a source of hope and purpose in difficult times, it must do the important things, now, with the right people; namely, that:

- it must be located in collaborative partnerships between faculties of education and the field on the one hand, and between faculties of education and university faculties of arts and science on the other;
- such an arrangement calls for a reconceptualization of teacher preparation that does not uncritically abandon the concurrent program model; and
- provided faculties of education grasp the opportunity and reconceptualize both their mission and preparation programs, Canadian teacher educators can meet the challenges (currently facing their colleagues in other countries) that may lie ahead.

My purpose here is twofold: to show how a reconceptualization of Canadian teacher preparation will involve partnerships in and outside the university, and how these partnerships inexorably lead to interdisciplinary study and field-based teacher research in a reconceptualized concurrent preparation program. My argument is not against consecutive programs per se; rather, it is against the misguided and short-sighted US-influenced reform thinking that uncritically presumes that consecutive programs must become *the* dominant model for preparation.

Reconceptualizing Teacher Preparation

How can teacher preparation lead to constructive change in classroom practice? How can preservice programs prepare reflective, inquiring teachers of deep subject matter understanding capable of connecting complex concepts, skills, and actions with the minds and lives of an increasingly diverse body of student learners? My thesis is that recent US attempts to reform teacher preparation (Carnegie Forum, 1986; Holmes Group, 1986; Lucas, 1997) do not adequately address the needs and realities of the Canadian context. I also believe that the reform attempts in England and Wales (Gilroy, 1992) miss the mark. Thus I strongly contend that faculties of education have a critical role to play in the preparation of teachers in Canada, but that such a role will only materialize when they "rediscover their mission as professional schools, built around the moral and ethical responsibilities of teaching and preparing to teach and all the scholarly and service activities that would be expected to support, nurture and sustain this central purpose" (Soder & Sirotnik, 1990, p. 400).

Can faculties of education do this? With great difficulty, because they are caught on the horns of a dilemma. On the one hand teacher preparation has

become a less important piece in their operation. Labaree (1992) documents in an historical analysis how teacher preparation is no longer the centerpiece in faculties of education. It is forced to compete with a wide range of other programs whose prestige is frequently greater. One of the most intriguing features of the original Holmes Group is that it consisted of a group of deans from research university-based colleges of education who were arguing for the centrality of teacher preparation in their own institutions. Although the context in Canada is different, Sheehan and Fullan (1995) acknowledge that the location of teacher preparation in universities has proved problematic because of the emphasis in these settings on theory and research at the expense of practice and the difficulties that programs have in coming to grips with the prevalent social issues (e.g., cultural diversity, multiculturalism, etc.) of the day.

On the other hand, without teacher preparation, faculties of education would cease to exist. Goodlad (1990) notes that public policy-makers and other faculties and administrators on university campuses show little interest in faculties of education, save for their function as preparers of teachers. Moreover, Fenstermacher (1992) suggests that there would be little public lament if alternative routes to teacher certification became the predominant, if not exclusive, form of entry into teaching and faculties of education eventually ceased to exist.

Thus the current state of teacher preparation in North America can be characterized either as an attempt to change teacher preparation that is caught up in the agenda of saving faculties of education, or as a struggle to change the priorities of faculties of education as a way of saving teacher preparation. In my view many proposals for changing teacher preparation (Lucas, 1997) represent the former more than the latter. Whatever the motivation, much reform in Canada came about in the late 1980s and early 1990s because of a perception that there was both an urgency for and a window of opportunity to change teacher preparation programs (Fullan, Connelly, & Watson 1987). Many attempts at change were influenced by the Holmes Group (1986), which argued for the separation of subject disciplinary content from pedagogical processes. That is, disciplinary content was to be taught in the faculties of arts and science and pedagogical processes taught subsequently in the professional studies component of teacher preparation in faculties of education. Thus most attempts at reform in Canadian teacher preparation have essentially removed the concurrent preparation program format in favor of a consecutive one. Although this looks like a form of joint ownership in the university, I contend that it is analogous to an unconsummated marriage—the partners live and work in isolation instead of continually coming together to negotiate the realities of curriculum dilemmas. I also see it as a "Mephistophelean bargain" that is politically expedient to campus-based faculties: it bolsters undergraduate student numbers in the faculties of arts and science in return for acceptance of the existence of a faculty of education, but does little to improve teacher preparation. It represents horizontal and not vertical staffing; faculty members are committed to their own courses but not to the teacher preparation program per se. Thus, despite the good intentions of reformers, this approach tends to undermine the viability of academically rigorous professional programs steeped in pedagogy. Indeed, I believe that expedient proposals like those put

forward by reformers (Lucas, 1997; Holmes Group, 1986) could sound the death knell for the seemingly precarious future of both teacher preparation programs and faculties of education.

By contrast I argue not for the abandonment of concurrent preparation programs, but for a different understanding of their enactment. (There are concurrent preparation programs still in operation in Canada, but these have not figured highly in discussions of teacher preparation reform—hence my argument is with the clear trend in teacher education policy at major research universities toward the reinforcement of the consecutive model as *the* way to go to reform teacher preparation.) I posit that teacher preparation should not be "owned" exclusively by the university, that the area of responsibility for teacher preparation that does properly belong to the university is de facto co-owned by the faculties of arts, science, and education, which should be recognized de jure, and that teacher preparation is the joint property of the university and the field. With Tom (1995) I also contend that practice must precede knowledge and that vertical staffing with faculty teams committed to the program and to team-teaching must replace the current emphasis on horizontal staffing (faculty commitment to a course). And with Tom (1995) I am convinced that students need to have a shared experience with a cohort rather than the current emphasis on continual regrouping around courses.

To prepare teachers with a sense of hope and a deep subject matter understanding that is closely connected with pedagogy and learning, I call for two broad features in teacher preparation programs. First, in addition to being taught by cases that state theoretical claims relative to the complexity of classroom life, prospective teachers need to engage in classroom-based action research into dilemmas of teaching, such as investigating problematic aspects of the curriculum, attempting to understand learners' conceptions of subject matter content, examining difficult student behavior, and exploring the beliefs students bring into teaching from their prior socialization in schools and how these beliefs affect their views of teaching and learning. Such collaborative inquiry is consistent with the idea that teacher preparation be co-owned by the university and the profession and with a call for practice before knowledge in the shared experience of a cohort staffed vertically by team-teaching university and field-based personnel. It would enable prospective teachers and their school associates to reflect together on the pedagogy needed to bring about learner understanding of important curriculum concepts. Second, I call for rigorous integration—as distinct from the current reform emphasis on separation where disciplinary content is taught in the faculties of arts and science and pedagogical processes are taught in the professional studies component in faculties of education—of liberal arts and sciences with professional pedagogy. Such a direction, underscoring both the co-ownership of teacher preparation between the faculties of arts, science, and education and the commitment to team-teaching of instructors representing diverse perspectives, would call for an arrangement whereby professors from the different faculties plan and teach courses collaboratively in order to give prospective teachers opportunities to see and make connections between disciplinary subject matter and related pedagogy. In short, it calls for an interdisciplinary approach.

Integrating Liberal Arts/Sciences with Professional Pedagogy: An Interdisciplinary Approach

I am arguing for a different approach to teacher preparation from that put forth by US reformers. I contend that if we are serious about wanting teachers to transcend the way they were taught as school students, then we must begin to integrate the liberal arts/sciences and pedagogy components of teacher preparation. One aim of such an integration would be to create a situation in which university-based teacher educators (i.e., professors in the faculties of arts, science, and education) are exposed to and provided with opportunities to practice much-needed, up-to-date pedagogy. Only in this way can we potentially change the typical lecture approach that characterizes the presentation of knowledge in most disciplines at the university. For teacher educators, then, the structural arrangement of team-teaching-integrated content and methods classes would provide the challenge of employing the pedagogical approaches they espouse. For example, instead of lecturing prospective teachers about constructivism, teacher educators would attempt to engage preservice teachers in the constructivist processes that are related to the content they are learning.

Typically elementary teachers take two years of undergraduate arts or science courses before entering education to complete a BEd. By contrast, secondary teachers complete a major and a minor in the academic disciplines before undertaking professional studies and a practicum. Once in the work force elementary teachers are typically criticized for their lack of content in academic subjects such as science, mathematics, and English language arts, and secondary teachers for their preoccupation with their subject discipline and their inattention to pedagogy and how children learn. One important provision, then, must be for secondary preservice teachers to learn from experiences typically associated with elementary teacher preparation (and vice versa), while not jeopardizing the integrity of the subject matter they need to study in depth. To safeguard the integrity of the subject matter teachers need to study in depth, I propose an interdisciplinary approach.

An interdisciplinary approach can be conceptualized around the following four subject areas: the humanities (English, social studies, languages, etc.), the sciences (mathematics, biology, chemistry, computer science, physics, etc.), the fine arts (music, art, drama, dance), and the practical arts (physical education, business education, technological education, home economics). Preservice elementary and secondary teachers would take a preliminary course designed to introduce them to interdisciplinary thought by providing an overview of the different ontologies, epistemologies, content, and methods of each of the four areas. This course, team-taught by arts, science, and education faculty, would examine how knowledge is constructed in each of the areas and would look closely at the connections and relationships that exist between the different disciplines that comprise the four areas. The emphasis would be on developing a critical understanding of the different perspectives and world views that each area represents. Such an overview course would by definition not provide the subject matter depth that secondary teachers require. Consequently, secondary preservice teachers would choose one of the four areas for specialization, whereas elementary teachers would continue to immerse themselves in all four areas. This is not to suggest that elementary preservice teachers would be

undertaking more study than their secondary counterparts; rather, it is to emphasize that whereas secondary preparation would focus on *depth*, elementary preparation would emphasize *breadth*. Secondary specialization in an area, then, would through team-taught thematic inquiry entail the detailed examination of both the structure of knowledge in each of the disciplines that make up the area, and also how the disciplines could combine to address real-world problems. By contrast, elementary general immersion would through similarly team-taught thematic inquiry use real-world problems as pointers for exploring the disciplinary knowledge contained in all four areas.

I am not unaware of the implications of what I am proposing here for the typical university faculty and departmental structure. Because departments are characteristically organized along subject discipline lines, the effects in many institutional contexts would be dramatic, if not drastic (see Dittmer & Fischetti, 1995, for a trenchant description of what happens when teacher educators try to practice what they teach).

The counterargument—that one must take account of the existing culture of the institution—is one that I have used myself to demonstrate the power of a culture of collegiality in enabling teachers' professional development (Grimmett & Crehan, 1992). However, I also pointed out that cultures can just as easily become stifling as they can be enabling. My purpose here, then, is to go beyond Sheehan and Fullan's (1995) contention that the location of teacher preparation in Canadian universities has been problematic to pose a fundamental question about the nature of teacher preparation per se. My point is that it is not the *move* to universities from normal schools that has proved problematic, but the existing *culture* (and accompanying *structure*) of research-based universities in which teacher preparation programs have been lodged. My contention is that it is highly problematic when we accept that culture and that structure as taken-for-granted aspects of higher education-based teacher preparation. Thus I call for a critical examination of university culture and structure, not to remove teacher preparation from the university setting, but to provoke debate about how its practice can be reconceptualized. If the purpose of restructuring is "one of changing the organization so that good ideas and strategies born in practice can flourish and not be stymied by existing bureaucratic forces" (Grimmett, 1995, p. 210), then it is vital that reconceptualization precede any attempt at restructuring, not the other way round.

Bringing about an integration of the liberal arts and professional pedagogy is only one aspect of the reconceptualization I propose. On its own it will not enculturate teachers into the practice of teaching. In combination with an emphasis on teacher research, however, I believe it could become powerful.

Teacher Research

The reconceptualization of practice in teacher preparation that I am calling for also rests on the premise that learning to teach can only be developed through regular and intensive classroom-related inquiry into (a) the subject matter being taught and students' understanding thereof, (b) everyday dilemmas of practice, (c) collaboration and collegiality, (d) social issues and institutional constraints affecting learning, and (e) professional entrance. I envisage five broad types of teacher research for both elementary and secondary preservice

teachers: learner-oriented explorations of subject matter, teacher-oriented inquiry of the action setting (leading to collegial exchange), collaborative inquiry, critical-analytical inquiry, and internship inquiry. It needs to be underscored here that whereas the proposed integration of liberal arts and education courses would provide for the separation of secondary from elementary preservice teachers for purposes of subject matter specialization, the teacher research experiences would not. I deem it important that secondary preservice teachers learn from and with elementary ones and vice versa. Given the provision for secondary teachers of subject matter specialization wherein the integrity of the discipline is upheld and the provision of a generalist orientation for elementary teachers, I would maintain strongly that the needs of elementary and secondary teachers thereafter are similar in that they all need to learn how to represent knowledge in ways that make it comprehensible to learners.

Learner-oriented explorations of subject matter. This action research focus is complementary to the integrated approach to academic content and professional pedagogy outlined above. The initial focus is on understanding the structure of thought in the discipline or disciplines of the subject area preservice teachers have chosen to teach. A parallel focus is on understanding how students learn, so that the primary focus of this exploration then revolves around how connections can be made between subject-related materials or ideas and the minds of learners. To do this preservice teachers need to study learners individually and in groups to discover how learners make sense of a given concept. In other words, their initial orientation to classrooms becomes one of observation carefully structured around examining how children think about the subject matter they are learning. Through probing and sensitive interviewing, preservice teachers attempt to uncover learners' conceptions and misconceptions. Schön (1988) talks about this as "giving him reason" (p. 21) and "getting curious about what kids say and do" (p. 20). During this inquiry preservice teachers explore children's reasoning using different activities and processes. Once they have developed hypotheses about how children make sense of particular concepts, this type of research would then launch them into speculating different strategies for teaching those concepts efficaciously and trying them out in practice.

Teacher-oriented explorations of the action setting (leading to collegial exchange). This research focus is framed around the individual preservice teacher's concerns and dilemmas that arise in the action setting of the practicum. Preservice teachers are typically motivated to pursue inquiry into their practice when they encounter practical dilemmas in their classroom teaching. Typically they experience dilemmas when "the practical situation is one in which the traditional instructional practices have been destabilized and rendered problematic by pupil resistance or pupil 'refusal to learn'" (Elliott, 1990, p. 47). These dilemmas usually pertain to difficulties with curriculum, pedagogy, or assessment in classroom teaching, for example, their difficulty connecting material or ideas to students' minds and ascertaining the extent of their effectiveness. But they also frequently relate to specific students and their patterns of behavior in the group setting of the classroom. When the practice of preservice teachers is rendered problematic by dilemmas touching student learning, they become open to the prospect of inquiry. Their minds are typically filled with questions such as:

How will the change work out? Can I carry it out successfully? And to what extent will the students' learning be enhanced? Such questions are hard to deal with in isolation. There is something about them that motivates both teachers and preservice teachers to talk to one another, to seek support from their colleagues. Engaging in collegial discourse about one's classroom dilemmas in a mutually supportive learning community enables the difficulties of student learning and behavior to be addressed and in some cases resolved. When preservice teachers subject to the scrutiny of supportive colleagues the changes they have made and are making in classroom practice, such changes take on the nature of provisional hypotheses for action that can be examined and closely monitored.

Individual teacher inquiry inevitably connects with collaborative inquiry in that the process usually engages them in collegial discourse. What is still individual, however, is the nature of their practicum placement. To make the inquiry truly collaborative entails being placed in a team-teaching situation.

Collaborative inquiry. This type of research takes place in a team-teaching situation. Here cohorts of preservice teachers are placed together in one practicum setting. As I first suggested 10 years ago (Grimmett, 1988), a cohort of, say, five preservice teachers could be placed with two school associates (or cooperating teachers) and one faculty associate or faculty member. Such a setting would provide opportunities for teachers to engage in the "learning of content in context" (Lieberman, 1994, p. 20) in an environment where issues can be "clarified and resolved in free and open discourse, characterized by mutual respect and tolerance and an absence of hierarchical power constraints" (Elliott, 1990, p. 48). These teams would brainstorm, plan, implement, and then critique teaching together. The focus would be on creative and critical pedagogical thinking. The purpose would be to break down conventional norms of teaching—for example, the individualism, privacy, reticence, self-sufficiency, and isolationism, and so forth that Bird and Little (1986), Chism, (1985), and Lieberman and Miller (1990) describe—through an innovative structuring of collegial, inquiry-oriented teams. Any proposed changes in teaching can be tested out in the action setting, thoroughly discussed in the inquiry-oriented collegial team, and then reported to other teams engaged in teacher preparation.

Critical inquiry. This teacher research focus is more critical in nature than teacher-oriented or collaborative inquiry. Through structured observation of other practitioners at work, preservice teachers would attempt to understand how the social context of schools and classrooms affects student learning by examining a pedagogical dilemma that occurred during their practicum experience. For example, elementary preservice teachers might look at how children who live in poverty-stricken conditions make sense of a teacher's invitation to write creatively, and secondary preservice teachers could investigate how the changing youth culture of today affects adolescent learners' attempts to construct the reality of literary novels and Shakespearean dramas. This type of research, occurring as it does after a lengthy practicum, would give preservice teachers the opportunity to study the more profound and troubling questions they have about teaching and learning, particularly those taken-for-granted assumptions and constraints on learning that are part of the systemic context of

bureaucratized schooling. This research would culminate in a project report or some other form of representation. In other words, preservice teachers would be engaged in analyzing classroom situations for the impact that curriculum, pedagogy, assessment, organizational constraints, and power relationships have on student learning.

Internship inquiry. This last type of teacher research takes place during the induction phase of teacher education. Teachers spend their first year of teaching as an intern (a position with reduced pay and workload that is analogous to architects' and lawyers' articling or medical practitioners' residency) and are required to conduct research into the dilemmas of practice they encounter on entering full time the social and political context of schools. As interns teachers would be expected to continue to interact with the faculty of education. This type of teacher research is, therefore, designed to help teachers enter the work force by fostering greater collaboration between teacher educators and school practitioners. During the year's internship, faculty associates or faculty members would regularly visit first-year teachers' classrooms. Such provision would give beginning teachers an opportunity to gain further knowledge and confidence before taking on the full responsibility for student learning. This transition would also provide further opportunities for preservice teachers to maintain a focus on those dispositions and pedagogical assumptions that are central to the intellectual and moral aspects of the practice of teaching.

I propose a reconceptualization of teacher preparation practice around an integration of interdisciplinary subject matter with pedagogy and teacher research. I believe such a direction holds much potential for developing empowered teachers; I am also aware that it also holds implications for how teacher educators direct their energies.

Teacher Educators: Team-Teachers and Facilitators of Classroom Action Research

It follows from the above proposal that teacher educators need to reconfigure what they do around team-teaching and the facilitation of practitioner inquiry. Such a reconfiguration would involve teacher educators in working collaboratively and planning assiduously with colleagues in the field, other faculties, and their own faculty. It would also involve them in building a culture of inquiry, exposing teachers[1] to alternative views and practices, and providing organizational support for preservice teacher research groups.

Building a culture of inquiry involves sustaining large blocks of uninterrupted time for teachers to talk in teacher research group meetings. The nature of teacher research demands self-disclosure, so it is important to take time to develop a trusting atmosphere where teachers feel safe to take risks to disclose themselves and their practice. The inquiry process is typically initiated by teachers in response to a particular practical situation or dilemma that they face. The teacher educators' responsibility is to facilitate the group process through sensitive and supportive questioning, to crystallize, and focus the collaborative discussion. Their specific actions would revolve around framing the conditions of inquiry, accepting tension and dealing with conflict, modeling collegiality and experimentation, focusing teacher talk on action, enabling teachers to frame their inquiry, and connecting action with student learning.

In framing the conditions of inquiry, teacher educators need to use a framework (see Dockendorf, 1995, for an exemplar) that releases teachers' reflective writing, conversations, and collaborative work in preparation for developing questions of inquiry. Such a framework, however, can serve only as a heuristic and never as a predictable agenda. Thus it is important to be flexible, responsive, and willing to change the focus based on the needs of a particular group of student teachers at any given time. It is also important that all groups have a trusting, sanction-free environment that sustains interpersonal relationships and a focus on collaborative action. Such an environment permits tapping into the deep reservoir of ideas and experiences that inquiring teachers bring with them as individuals. It also enables them to feel comfortable expressing the uncertainties and questions inherent in their daily practice. Without this comfort with discomfort, meaningful and compelling research questions rarely materialize.

One way teacher educators can nurture these conditions is by continually modeling the acceptance of tension and conflict as basic to their own and others' practice. In so doing they would permit teachers to work through any conflict among themselves and for themselves. This would also involve them in modeling collegiality and experimentation in their own practice. They would take risks and make commitments; for example, taking part in the rigorous discussion of teaching and learning that accompanies the observation of classroom practice, occasionally bringing up their own dilemmas of practice for critique. In this way they would set the tone for focusing teacher talk on action; that is, they would attempt to ensure that teachers examine their practice as it affects student learning. The closer teachers' research questions are to their classroom pedagogy, the more compelling their inquiry.

When teachers have a question to pursue, the teacher educators' responsibility is to ask questions, provide resources, or suggest alternatives for designing the inquiry project. A further task is to make explicit connections between classroom actions and student learning as teachers engage in identifying issues, dilemmas, or questions. This process frequently entails focusing, redirecting, or provoking conversations that connect the action of teachers' research to student learning.

In order to facilitate experimental action in classrooms, it is important to provide teachers with frameworks that sensitize them to examining critically the daily dilemmas of teaching, to reflect on the taken-for-granted societal and personal assumptions that pervade their action, and to reframe problems of practice from the perspective of the learner. Like all practitioners teachers are prone to overlook the basic premises that undergird their classroom action. Sometimes these basic premises constitute humanly constructed distortions that teachers have uncritically accepted as valid. At other times such premises constitute outright biases about teaching and learning that have little justification. Because change in practice is so dependent on change in beliefs and values, it becomes necessary to help teachers examine collaboratively those beliefs and values that they take for granted.

Teachers do not change their instructional practices, nor do they enthusiastically begin collaborating with one another to create a fresh vision for such change without first being challenged to think differently about the daily

dilemmas of practice that they face. Such challenge can be provided by teacher educators who expose teachers to alternative ways of viewing practice. The purpose here is to prevent what Hunt (1987) termed "a hardening of the categories," that is, teachers becoming entrenched in a narrow and shallow way of looking at their world and their work. Exposing would-be teachers to alternative forms of practice is one way teacher educators can challenge them supportively.

Providing organizational support for teacher research groups would involve teacher educators in acting as advocates at the school and university level for the allocation of appropriate resources, both fiscal and human, to restructure teacher preparation through teacher research groups. This advocacy would also include a focus on improving policy so that it supports and does not counteract the practices associated with such development. Supporting the continuous investigation of classroom practices, the systematic exploration of central issues in student learning, and the reporting of research findings to a wider community, is one way teacher educators can establish the conditions under which beginning and experienced teachers can become engaged in the transformation of schools into places of learning.

This reconfiguration of what teacher educators can do suggests that it is not a role involving a hierarchical position with its accompanying agendas of power and control, but a series of interrelated tasks designed to transform the experience into one that sustains a rich conversation about pedagogical possibilities by engaging collaboratively with colleagues and involving prospective and practicing teachers in classroom action research and observation. The primary task of teacher preparation is thus pedagogical, working with student teachers to help them represent knowledge in ways that make it comprehensible to diverse learners in a rapidly changing social context by collaboratively addressing the vexing questions and perplexing dilemmas inherent in daily practice.

Conclusion

Can Canadian teacher educators meet the challenges that potentially lie ahead for them? I believe they can, provided they do the important things right now, with the right people. That is, teacher educators need to reconceptualize their mission as enculturating teachers into the practice of teaching with a sense of hope and purpose, now, in collaboration with other colleagues in higher education and the field. This would involve teacher educators in reconfiguring, not abandoning, the concurrent program model by bringing together discipline-based knowledge with practical knowledge of teaching, necessitating two broad features: (a) students need to engage in action research into dilemmas of teaching; and (b) rigorous integration of liberal arts and sciences with professional pedagogy is essential. The first emphasis would dramatically change what teacher educators do from conventional practices of transmission to those of facilitation, for example, building a culture of inquiry, exposing teachers to alternatives, and so forth. The second direction would call for professors from different faculties to teach courses collaboratively in a manner that gives students opportunities to make connections between subject matter and related pedagogy. Such purposeful reconceptualization then permits the introduction

of alternatives, for example, the initiation of professional development schools (PDSs), or collaborative, school-based programs, or the transcending of traditional one-on-one practicum placements to having cohorts present at one site. My thesis is that these alternatives all become less problematic when they derive from (and do not precede) a careful and purposeful reconceptualization of the practice of teacher preparation. Moreover, they serve to foster a sense of optimism that teacher educators can have a positive influence on practice, which in turn energizes them to fulfill their calling to teach teachers. Only then can teacher preparation contribute constructively to enhancing the learning of society's young in a rapidly changing and disintegrating context.

Some may consider what I propose to be like digging a scholarly grave—what university-based educator really wants to put in all that time with the field and faculty colleagues? I prefer to think of it in Tolstoy's terms of digging beds for the somewhat frail and fatigued purposes of teaching, a commitment that could in surprising ways build powerful alliances with the field and other faculties that when the harsh winds of political restructuring blow in Canada (and blow, I predict, they will), could provide much-needed protection for higher education-based teacher preparation. However, if these challenges are not met quickly and decisively, then I fear that even here we could witness the demise and eventual destruction of university-connected teacher preparation.

I do not wish to end on that note, for the future of teacher preparation lies in a search for deeply grounded hope (not the optimism brought about by alternative arrangements) and purpose—the art of the possible—when the whole enterprise has in many countries come under close scrutiny, if not scurrilous attack. Fullan (1997) attempts to grapple with the notion of hope. He defines it as "the capacity not to panic in tight situations to find ways and resources to address difficult problems," suggesting that "lost causes" are the only ones worth fighting for (p. 221). He further maintains that Goleman's (1995) notion of emotional intelligence (i.e., self-control, zeal, persistence, self-motivation) is an important factor in success and that people possessing this intelligence are generally optimistic. In similar vein I would argue that teacher educators need hope because teacher preparation often seems like a lost cause in the institutional context of higher education. But it is hope that they need, not optimism. The important question to address is how do teacher educators derive a sense of hope—"the capacity not to panic in tight situations to find ways and resources to address difficult problems"—in the context of their work? Put differently, how do the qualities of self-control, zeal, persistence, and self-motivation contribute productively in the daily toil of teacher preparation? Although I agree with Fullan's claim that the qualities of emotional intelligence (as Goleman, 1995, defines them) are important to success, I contest his assertion that people who possess them are generally optimistic. Rather, I would suggest that they are hopeful.

Optimism expects things to get better. Often they do not! By contrast, hope, regardless of circumstance, entails purposefully acting as if working toward the good is possible. It involves deliberately eschewing traditional patterns of acting, for example, doing only what is rewarded by higher education institutions and so forth, in favor of taking risks and making commitments, such as facilitating teacher research and engaging in interdisciplinary team-teaching

and course planning. To act in hope is to choose deliberately to see one's work as a genuine contribution, a meaningful service, with integrity, perseverance, courage, and imagination that touches others' lives in a positive way. To act as if there were nothing more important in the world than working with prospective teachers to foster their understanding of pedagogically oriented subject matter and to facilitate inquiry into student learning can motivate a level of hope-filled action one might not otherwise realize. To act as if one's work as teacher educator is an important mission can override assumptions and actions governed by the anxiety and uncertainty inherent in current conditions that undermine one's ability to focus on what is important and to act with energy and purpose. In short it can engender the renewal of hope that is so crucial to the preparation of those who are destined to touch and shape the future.

Note

1. The term *teachers* refers primarily to preservice candidates, but also includes school-based teachers and colleagues in the faculties of arts, science, and education who fulfill an important responsibility in teacher preparation.

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Seeking Ethnocultural Equity Through Teacher Education: Reforming University Preservice Programs

This article argues that significant reform is needed in Canadian faculties of education to address adequately social justice on issues of ethnicity, culture, and racism. Teacher education programs can model and provide equitable educational opportunities for preservice teachers and promote equity for all students in public schools. Addressing multicultural education and antiracist education specifically, the article provides an overview of current issues and debates in this field. Attending to equity and pluralism in teacher education involves overcoming several challenges; a sampling of some exemplary programs and promising developments in this area provides some specific directions for further meaningful reforms.

Cet article affirme qu'une réforme en profondeur doit forcément se produire dans les facultés d'éducation au Canada si l'on veut aborder de façon convenable l'étude de la justice sociale au sein des questions d'ethnicité, de culture et de racisme. Les programmes de formation des enseignants peuvent servir de modèles, offrir des possibilités d'instruction aux enseignants en formation préalable et promouvoir l'équité vis-à-vis de tous les élèves dans les écoles publiques. En abordant l'éducation multiculturelle en général et l'éducation antiraciste en particulier, l'article présente une vue d'ensemble des questions et des débats courants du domaine. Afin d'assurer l'équité et le respect du pluralisme dans la formation d'enseignants, il est nécessaire de surmonter de nombreux obstacles. La présentation de certains programmes exemplaires et de démarches prometteuses dans ce domaine sert de guide pour de nouvelles réformes significatives.

Teacher educators are positioned to play an instrumental role in contemporary Canadian society by virtue of their pedagogical contact with a future generation of public schoolteachers. Many in the academy have begun to take up the challenge of addressing inequities existing in educational contexts in this country's pluralistic society. I argue below that although individual commitment to social justice on issues of ethnicity, culture, and racism is admirable, it is an inadequate end goal considering the significant reform needed in faculties of education. The way Canadian universities structure teacher education programs will be instrumental in their fulfillment of a crucial democratizing purpose: to ensure that equitable educational opportunities exist for all students regardless of their ethnic, cultural, or racialized identities.

I begin with a brief introduction to one wide swath of the larger fabric of social justice education, limiting my focus to addressing multicultural education and antiracist education as they have been defined and used in their brief existence. Following an overview of current issues and debates in this field, I

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explain the need for addressing ethnocultural pluralism[1] in teacher education programs. Noting several key challenges, I offer some promising directions for meaningful reforms.

Exploring Multicultural and Antiracist Education in Canada

In its relatively brief history the field of education attending to equity issues has undergone much transformation in response to a dynamic social milieu. Specifically on ethnocultural and racial issues it has evolved in the past few decades under the umbrella of multicultural education with significant influences from, and interactions with, antiracism and other perspectives (Fleras & Elliot, 1992; Moodley, 1995; Young, 1995). I situate this discussion in the specific sociopolitical context of Canadian postsecondary education and public schooling. However, with much of the research and theorizing in this area informed by United States conceptions of multicultural education and British formulations of antiracism, I also draw on insights from some of these sources.

Canada is unique in that remains one of the few nations with multicultural ideals entrenched into national government policy, most recently in the 1982 *Canadian Charter of Rights and Freedoms* and the 1984 *Canadian Multiculturalism Act*. As well, this country's historical immigration patterns and policies, social and educational institutions, and public responses differ in significant ways from those of other countries, affecting the singular development of Canadian educational policies, curriculum, research, and practices in this area (Fleras & Elliot, 1992; Kymlicka, 1995; Moodley, 1995; Wilson, 1981). Currently there is strong public debate in Canada about the value of any form of education for ethnocultural equity, and indeed of the concept of multiculturalism itself. The most vocal critics call for its immediate abolishment (Bibby, 1990; Bissoondath, 1994); in these arguments multiculturalism is identified as a primary cause of ethnic tensions in Canada, and cultural diversity itself is positioned as a threat to national unity and traditional values. A comprehensive rebuttal and cogent critique of some of these and other antimulticulturalism writers appears in Puttagunta (1998). It is noteworthy to mention here that so-called antiracist perspectives may engender even greater hostility, misunderstandings, and resistance among many Canadians.

In addition, some Canadian researchers depict ethnocultural equity education as a divisive field of study, describing conflicts between multicultural and antiracist camps in dichotomous, oppositional terms (Kehoe, 1994; Mansfield & Kehoe, 1993; McGregor & Ungerleider, 1993). I wish to avoid simplified bipolar constructions or positions that deny the complexity of school-based activism. In the daily practice of Canadian activist educators, academic debates are largely ignored, while labels like *multicultural education* and *antiracist education* are often used simultaneously or in contradictory ways in initiatives challenging discrimination (Berlin & Alladin, 1996; Cogan & Ramsankar, 1994; Lund, 1993; Smith & Young, 1996). For example, in certain circumstances "many activists may use such a [multicultural] discourse to build antiracist coalitions" (Roman, 1993, p. 83). I acknowledge the strategic uses of conflicting terminology toward progressive ends, and focusing on those "educators and students scrutinizing the common ground, as well as the conflicting moral and political stakes, of the discourses of multiculturalism and anti-racism" (Roman,

1993, p. 83) seems a useful way to address the complexity of language choices and political positioning in this field.

Some scholars observe remarkable agreement among researchers and theorists addressing ethnocultural concerns (Banks, 1995; Fleras & Elliot, 1992; Gay, 1995; Lyons & Farrell, 1994). In a recent comprehensive review of the US literature in this field, Gay (1995) reveals a "high degree of consensus ... on the major principles, concepts, concerns, and directions for changing educational systems to make them more representative of and responsive to the cultural pluralism that exists" (p. 40). Fleras and Elliot (1992) view antiracist education in Canada as "situated squarely in the category of multicultural education" (p. 313) while offering a more radical "edge" for addressing diversity in school systems. Between multicultural and antiracist perspectives in Canada, Mock (1996) notes, "in fact there are intimate connections, historically and particularly in the legislation. One cannot be achieved without the other" (p. 5). Addressing a large cross-Canada study of teacher attitudes, Solomon and Levine-Rasky (1994) also find commonalities between the two approaches including "links to civil responsibility, moral accountability, enhanced political sensibility, and critical participation embedded within a commitment to work on equity issues" (p. 63). Such conciliatory perspectives, although apparently denying key ideological differences between certain articulations of each position, evince a contingent means of achieving political solidarity against injustice. Reflecting the pluralism being addressed, educators need not speak with a single consensual voice. Educators currently addressing diversity issues most often occupy shifting spaces between and across multicultural and antiracist perspectives—not necessarily a middle ground—but one I broadly refer to as education for ethnocultural equity.

Becoming Critical: A Transformative Endeavor

There is a growing recognition by many researchers and activists of the politicized nature of their work around ethnocultural pluralism, and of the pressing need for coalition-building to influence educational policy and structural concerns. Rather than focusing primarily on harmonious intergroup relations through prejudice reduction workshops and minor curricular supplements, more educators and researchers than ever seek to implement school reform on a systemic level. From this more critical stance, as Gay (1995) recognizes, educators acknowledge "that the democratic and human rights imperatives demand that existing educational programs, structures, and practices be reformed to make them more accessible and responsive to groups that historically have been oppressed, silenced, and disenfranchised educationally, economically, and politically" (p. 41). This approach allows for the critical examination of inequities in curricular content, teaching practices, hiring procedures, and policies. Educators interested in what have been considered antiracist concerns—akin to variants of US "critical multicultural" stances—may find support from a number of authors addressing practical implications for schools (Fleras & Elliot, 1992; Ghosh, 1996; Gillborn, 1995; SooHoo, 1995; Nieto, 1996; Sleeter, 1996; Troyna, 1993).

A growing number of teacher educators and researchers adopting multicultural and antiracist education have become committed to transformative goals

of education. Ladson-Billings (1995) argues that "as the logical translator of theoretical and conceptual notions about diversity into real-world practice in the nation's classrooms" (p. 756), teacher education occupies a vital position between ethnocultural equity theory and practice. She notes that because theory development and practice do not happen separately from one another, there is a "synergistic and dynamic relationship that exists between the two. Practitioners are not merely waiting for scholars to develop theory before they begin to try new approaches to pedagogy" (pp. 752-753). Teacher educators hold an important station from which to influence preservice teachers' practice; by studying their own practice in this endeavor they can reciprocally inform their research and theorizing around multicultural and antiracist pedagogy.

Seeking Exemplary Models in Teacher Education

Taking the lead in transformative efforts have been some US scholars working to modify preservice programs from a critical multicultural position (Banks & Banks, 1995; Cabello & Eckmier, 1995; Jordan, 1995; McCall, 1995; Noordhoff & Kleinfeld, 1993; Phuntsog, 1995; Shade, 1995). In a recent comprehensive review of exemplary programs, Hidalgo, Chávez-Chávez, and Ramage (1995) found that "teacher educators often have taken the lead in advocating school reform and increased teacher engagement in the public schools" (p. 774). However, these are too often the exception rather than the rule in teacher education. Grant and Secada (1990) located just 23 studies of US universities addressing pluralism from 1964 to 1988. In a subsequent revisiting of the literature Grant (1994) located 44 studies pertaining specifically to multicultural teacher education—still a relatively small number. He charges that US teacher education programs in general have not kept up with the changing demographics of contemporary schools, lamenting that "the subject matter, content, and nature of the experiences offered in preservice courses have undergone little change, especially in comparison to the clearly unmet needs of urban students and students of color" (p. 1).

The situation in Canadian universities mirrors these observations, with few academic accounts of teacher education programs on issues of racialized and ethnic diversity and equity. A recent survey of the literature reveals a small number of journal articles documenting modest modifications to Canadian university and college education programs (Britzman, Dippo, Searle, & Pitt, 1997; Henley & Young, 1989a; Lyons & Farrell, 1994; Nimrod & Emberg, 1995; Solomon, 1997; Young, 1995). In addition, little research is ever done on these programs; Young (1995) criticizes the disappointing lack of academic accomplishments to date in the struggle for ethnocultural equity in education:

> Faculties of education have contributed little to this struggle and have received little attention in the multicultural or anti-racist education literature in Canada. While some faculty members have taken part in the critique of school practices (and have built academic careers theorizing about such practices) our own worksites and practices have been virtually ignored and left beyond critique. (p. 45)

Teacher educators and researchers wishing to take up this significant challenge confront a long history of inaction variously explained as apathy, in-

tolerance, or some other combination of bureaucratic afflictions. Seeking meaningful reforms in this context offers challenges, but the alternative of maintaining the status quo in the face of ongoing inequity and discrimination seems downright irresponsible.

Getting Beyond Peripheralization

Based on their study of university calendars from across Canada, Henley and Young (1989a) conclude that a focus on diversity in teacher preparation "is not afforded a high priority in many Canadian universities and that where multicultural education is addressed it is often done through isolated course offerings which cannot possibly provide to students the kind of exposure necessary to address adequately the complexity of the culture-society dynamic" (p. 27). Granted many educational foundations courses include topics such as diversity, pluralism, or multiculturalism, but their treatment in class depends on the expertise and experience of the individual instructors. Some teacher education programs offer optional courses on specific issues such as Native education or bilingual instruction. A small number of universities have developed separate degree programs in these fields or related areas such as intercultural education (Friesen, 1991; Young, 1995).

Some may view the above developments as evidence of a promising trend, but others contend that such additions offer the teaching profession a disservice, just as "celebratory" multicultural programs in schools are criticized for being superficial and culturally essentialist. These few supplementary courses may help marginalize people based on differences and push diversity issues into the narrow spaces of "special days" or add-on units included only when time allows. This supplementation or "tinkering" does little to address systemic inequities in schools or universities, nor does it necessarily help usher in meaningful changes across the program. Grant (1994) concludes that "the common response of merely adding multicultural courses to the curriculum of teacher preparation is insufficient, ineffective, and potentially misleading—even damaging" (p. 7), yet it remains the typical response of faculties of education to calls for change. A brief analysis of a specific Canadian university program with which I have personal experience illustrates the continued peripheralization of this field.

In a recent study of the teacher education program at the University of British Columbia, Stovel (1996) surveys the course offerings and content and reports on interviews with 16 people—including students, faculty, and administrators. She reveals that the nature and substance of multicultural or antiracist curricular "content depends more on the instructor than on the course" (p. 11). Students and professors alike experience that one instructor might deal specifically with any equity pedagogy while another may choose to avoid it entirely; in fact, one instructor specifically avoided broaching any "uncomfortable issues" in or out of class, even when pressed by students to do so (p. 11). Similarly, topics listed on course syllabi related to diversity and equity are often dropped due to a lack of time. Stovel surmises that multicultural and antiracist education need not "be treated as a separate topic ... [but] should be continuously incorporated in the curriculum and reflected in the teaching methods" (p. 17). In another study of the UBC teacher education program, 48

beginning teachers completed retrospective surveys (Housego & Badali, 1996). Although ethnocultural equity issues were not among the survey items, in the open-ended section some respondents expressed a desire for more relevant optional "courses contributing to understanding ethnic minorities" (p. 388) and recommended better "practical preparation for dealing with multicultural issues" (p. 390). To what extent any such reforms will be implemented at UBC remains to be seen in the near future as the teacher education program is currently under review, but early indications reveal no substantive modifications addressing ethnocultural equity.

Research on teacher education in the US seems unanimous that for substantive reform to occur in a program, an "infusion" of social justice principles must take place across the curriculum of the entire faculty (Cochran-Smith, 1995; Grant, 1994; Hidalgo et al., 1995; Shade, 1995; Zeichner & Hoeft, 1995). Even so, what this might look like in program design and implementation, course content and configuration, and practicum components for Canadian universities remains largely theoretical. The addition of one or two new "multicultural" or "diversity" courses is the most likely response from a university administration addressing ethnocultural equity issues specifically, despite the limited impact on preservice teachers. I recommend a more broadly integrated model of reform for substantive changes in the outcomes for teacher education candidates.

Pursuing Systemic Changes in a Conservative Climate

There are no simple prescriptions for a clear path to be pursued by teacher education programs seeking to become more equitable and responsive to the needs of a diverse society. Numerous practical considerations include a significant modification of a teacher education program entailing faculty retraining, major revamping of existing courses, and other substantive changes requiring considerable time and effort. For example, adopting an intensive professional development program involves revising schedules, reallocating resources, and establishing mechanisms for ongoing input and modification. Clearly a strong administrative commitment and reliable funding sources are necessary for substantive reforms to existing systems. Indeed having influential leadership spearhead such initiatives is cited as a key factor in the success of such reforms (Britzman et al. 1997; Nimrod & Emberg, 1995; Shade, 1995).

A significant obstacle is the current political climate of cutbacks and pressure from conservative education reformers emphasizing uniformity and a return to "the basics." At first glance a push for higher standards seems reasonable, yet motives for these initiatives may include supporting existing hierarchies and inequities (Barlow & Robertson, 1994). A conservative social climate entails often tenacious resistance to any equity reform efforts in teacher education programs and in schools (Apple, 1993; Fleras, 1996; Lund, in press). This can be especially daunting for junior faculty and beginning teachers, who are in many ways the least powerful agents in their institutions.

During a time of fiscal restraint and conservative rhetoric, education for ethnocultural equity becomes an especially contentious issue for administrators and faculty alike. Fleras (1996) describes an antagonistic climate in Canadian universities, often because "antiracist initiatives have been

denounced as irrelevant in the absence of empirical proof of a 'problem.' They have also been criticized as a misallocation of scarce resources, unnecessarily inflammatory or divisive, and unbecoming to a university enterprise" (p. 78). Those who implement such reforms may be criticized that their initiatives "spring from motives for damage control or empire-building, rather than for compassion or justice" (p. 78). Fleras advises that "responding to this challenge will entail both political will and financial muscle, at a time of fiscal restraint" (p. 83), no small challenge to teacher educators in the academy. They must continue to invent innovative funding initiatives for new programs, seek collaborations with not-for-profit community agencies, and organize effective lobbying for increased expenditures in this area. Although progressive teacher educators face a rising tide of "equity backlash" that threatens what little gains have been made, it is important to note that much of the resistance to such change in the academy originates from within.

Facing Conservatism in Teaching

Many observers recognize that teaching is a traditionally conservative profession with practitioners who typically resist change and innovation (Fullan & Hargreaves, 1992; Sleeter, 1992; Solomon, 1995). In a study of 1,002 teachers across Canada, Solomon and Levine-Rasky (1994) explored the dimensions of resistance to multicultural and antiracist education. They assert that, overall, "given the stability of the teaching culture and the ideological perspective that informs it, together with the depoliticized and uncritical framework of teacher education institutions, the relative lack of self-awareness and 'race' consciousness that teachers demonstrate is rationalized" (p. 11). A difficulty faced in efforts to address embedded ethnocultural inequities with teachers is their consistent avoidance of contentious issues. Indeed, Solomon and Levine-Rasky find that educators reveal "denial and reluctance to name the problem of racism and thus the need for an antiracist pedagogy remains a most tenacious obstacle" (p. 12). In a discussion of the above study Solomon (1995) finds the terminology of oppression and conflict especially problematic for many teachers; in fact, such "discourse may generate more dissent than teachers are prepared or even care to handle. Such oppositional language goes against the assumed Canadian culture of consensus and compromise" (p. 257). My own experience as a longtime public schoolteacher and social justice activist in Canada confirms these generalizations about many teachers.

The problematic framing of "training" a teaching profession has been viewed by its nature as a conservative pursuit naturally resistive to change (Britzman et al., 1997; Kincheloe, 1993). Kincheloe (1993) offers that "teacher education, both preservice and inservice, is saturated with cognitive experiences that encourage conservative, individualistic, competitive, and decontextualized tendencies in the thinking of teachers. Prospective teachers encounter few experiences that challenge the status quo in schools" (p. 14). Although an inherent conservatism may inhibit progressive initiatives, educators must take responsibility to seize those opportunities that inevitably arise and strive to create more such spaces for the critical engagement of preservice teachers on issues related to ethnocultural pluralism.

Countering Student Resistance to Reform

Teacher education programs often attract students who may not wish to disrupt current situations in schools and who may not value professors who try to do so. Although progressive teacher educators may be comfortable with their socially transformative agendas, their students are less likely to wish to disrupt the status quo. Kincheloe (1993) writes, perhaps somewhat sweepingly, that "teacher education students tend not to be seekers of alternative ways of seeing; they often are not especially interested in finding new lenses through which to conceptualize knowledge and pedagogy" (p. 14). It is true that many are probably attracted to the profession because they enjoyed their own schooling, and some will have conservative values. However, recent research in Canadian universities suggests that a more critical attitude in teacher candidates toward ethnocultural equity issues may be surfacing in faculties of education (Britzman et al., 1997; Housego & Badali, 1996; Stovel, 1996; Young & Buchanan, 1996). Young and Buchanan (1996) report that a majority of the preservice teachers responding to their survey at the University of Manitoba express support "for a version of multicultural education that calls for an inclusive curriculum and an inclusive teaching force" (p. 61) and a majority believe racism to be a major problem in Canadian schools. Respecting the potential for critical engagement with candidates will mean identifying and optimizing those fruitful pedagogical moments as they occur throughout the teacher education program. Creating and finding these critical spaces where emergent topical equity issues can be addressed and explored in a broader social context of teaching and learning is an ongoing goal for faculty committed to these issues.

Building on Preservice Teachers' Knowledge: Rethinking Education

Preservice teachers are the primary target audience of progressive educational reform, so programs must address their various needs, perceived values, beliefs, and knowledge bases. A transformative approach begins with preservice teachers exploring and better understanding their own social identities (Britzman et al., 1997; Solomon, 1997; Young & Buchanan, 1996). This self-conscious exploration of a personal knowledge base as a starting point need not be threatening or reductionist in its implementation. Instead, it is an early step in preservice teachers' growing awareness of, and openness to, the diverse and multitudinous ways of making sense of the world.

To this end Britzman et al. (1997) recommend modifications to the teacher education program at York University toward engaging faculty and students alike in rethinking the nature and purpose of education. For preservice candidates this means focusing on how they "think about and speak to the relation between education and inequality" (p. 17) and actively engaging in ongoing debates around the structure and outcomes of their own educational experiences. Rather than seeking the correct "solutions" to classroom problems, teacher education candidates are encouraged to view their university and teaching experiences as a means of engaging creatively and collaboratively with others toward negotiating meanings and their own roles in larger social systems.

Teacher educators with a transformative agenda must address the fears and hesitancy of some preservice teachers. Flexibility is a crucial element for success, as Jordan (1995) reports on a program she helped plan and implement. She concludes that teacher educators must "attend to students' developmental levels, entry beliefs, fears, and concerns. Most important, they must adapt instructional methodology and program objectives as often as it becomes necessary in an effort to continue the process of professional growth and development for themselves and their students" (p. 374). These efforts require a sustained level of energy and commitment, yet offer tremendous rewards for those whose goal is to nurture socially responsible, culturally sensitive, and equity-conscious teachers.

Preservice teachers must struggle to make sense of a wealth of challenging and provocative new ideas. Understandably their reluctance to embrace education responsive to ethnocultural diversity can include a complex and often contradictory set of reactions. In her case studies of three elementary education students, McCall (1995) explores their diverse and fluctuating reactions to multicultural education principles. Teacher candidates often have valid concerns about their own abilities and backgrounds and about the responses of their students, their students' families, other teachers, and administrators to progressive approaches to teaching. She argues that teacher educators need to understand and address directly preservice teachers' specific reasons for resistance to such pedagogy.

Reforms to teacher education programs could include improving preservice teachers' knowledge of what constitutes best practice in schools. This may be accomplished by locating and providing more actual examples of teachers of multicultural and antiracist pedagogy in a variety of school contexts from local, provincial, and national sources. For example, there are a relatively small number of documented school-based programs in Canadian public schools that could serve as a useful starting point (Berlin & Alladin, 1996; Cogan & Ramsankar, 1994; Lund, 1993, Smith & Young, 1996). Academic journals, professional publications, and contacts across schools are potential sources for examples of efficacious models of ethnocultural diversity programming. In this way a link is forged between teacher candidates' academic preparation and their engagement in effective social action in diverse school settings.

Ameliorating Faculty Resistance to Reform

Some professors may resist addressing diversity and equity issues because of perceived career risks to those who embrace its transformative tenets in opposition to the views of more conservative students and institutional structures. Teacher educators can expect some students to perceive their efforts toward any such reforms as an affront to tradition or standards. Greenman and Kimmel (1995) offer an illustrative instance of the inhibiting effect this can have on faculty: "Through negative evaluation, students often punish professors and facilitators who confront issues, take risks, and create discomfort. In many institutions, these evaluations are used as the sole means of teacher assessment" (p. 367). Similarly, classroom teachers commonly feel "apprehension about confronting the tensions inherent in a dialogue about antiracist education" (Solomon & Levine-Rasky, 1996, p. 30). The resultant lack of will on the

part of understandably cautious educators can work against an institution's equity initiatives. Developing a strong theoretical framework on learning and engaging a large portion of faculty are crucial early steps to overcome this.

Convincing faculty of the value of addressing ethnocultural equity issues means having empathy for the diversity of educators' starting points. Obviously this is a formidable task, as any faculty member's knowledge comprises deeply held personal and professional beliefs about learners and learning and about what it means to educate someone. Existing attitudes and behaviors must be viewed as a foundation for any new knowledge in order to bring about gradual, incremental changes in the daily practice of all faculty in a program. This makes common pedagogical sense and fits with constructivist models; teachers understand that the best learning occurs when they begin with what students already understand, building on and challenging that initial knowledge base as they encourage lifelong learning. It is reasonable, then, as an approach to modify teachers' practice at any level. Attending to the needs of the learners—in this case, the faculty—means also providing an ongoing "opportunity for many and consistent discussions about the goals and philosophy that will undergird the curriculum, and the freedom to restructure the delivery system in ways that are congruent with the goals and defined curriculum" (Shade, 1995, p. 380). A greater sense of ownership and common goals is the most likely result of a cooperative and developmental approach to change.

One goal of educational reform along these lines is to have individuals internalize the intrinsic value of addressing ethnocultural diversity and equity issues. As Nimrod and Emberg (1995) discovered during a major project across six Canadian community colleges, an effective means of achieving success involves a systemwide commitment to reform at several levels. In particular, attention must be paid to needs assessment, professional development for equity leaders, a variety of inservices and workshops, policy changes, and ongoing administrative support. Attending to equity need not entail professors discarding what they already understand about schools and preservice teachers, or about their own subject area specialties; rather, they add to that base. Preservice teachers are sent a clear and consistent message from all faculty, not just those identified as multicultural or antiracism specialists.

Addressing Hiring and Admissions Inequities

Addressing inequitable hiring practices and the resultant lack of diversity among faculty and staff is essential for opening teacher education programs to input from diverse perspectives (Lundy & Lawrence, 1995; Sleeter, 1993, 1996; Solomon, 1997; Stovel, 1996; Zeichner & Hoeft, 1995). Professors from ethnic minorities, for example, can be role models for students who have never seen themselves represented in the institutions in which they study. Their personal experiences with racism and with finding success can inform both mainstream preservice teachers and students from marginalized groups. A more representational faculty also sends a symbolic message that those behind the program practice the inclusiveness they advocate. Addressing cultural and racialized equity issues in personnel matters entails taking many different steps toward long-term transformation, beginning with policy changes and

modifications of hiring policies and practices—some reforms implemented immediately, and others incrementally over several years.

A related important issue that has received little attention in the Canadian context is the recruitment procedures used to attract certain students to the profession. Lundy and Lawrence (1995) analyzed demographic data from the applications and admissions records of applicants to 10 Ontario university teacher education programs, encountering challenges of missing or incompatible statistical data and changing terminology on ethnicity. Not surprisingly, they confirmed that more teacher candidates from "visible minority" and First Nations backgrounds are needed to reflect the diversity of the population served by public schools. Further, based on interviews with preservice teachers from these groups, Lundy and Lawrence offer several recommendations for attracting and maintaining candidates; these include carefully implemented affirmative action for attracting and accepting applicants, increasing the intake numbers, establishing large cohort groupings, and implementing curricular and instructional modifications. Clearly faculty hiring and inservicing, admissions policies and practices, and other core elements of a teacher education program must be evaluated and modified immediately and decisively if more equitable forms of teacher education and public schooling are to continue to take shape in Canada.

Framing Preservice Teachers as Researchers

Some scholars call for a deliberate overlapping of the roles of teacher and researcher in teacher education programs, with preservice teachers incorporating forms of field-based research into their early practica (Britzman et al., 1997; Clarke, 1995; Ladson-Billings, 1995). Teacher candidates and their supervisors benefit from this linking of practice and research. Ladson-Billings (1995) believes this may help bridge the theory-practice gap in education, as "this willingness to listen and learn from practitioners is providing researchers and teacher educators with opportunities to build a knowledge base in conjunction and collaboration with teachers" (p. 755). With the guidance of faculty members, preservice teachers may learn to view their teaching experiences in new ways while gaining insights into multiple perspectives on ethnocultural diversity and equity issues in their own practice.

Benefits of building in collaborative research activities to teacher education are reaped by the preservice teachers, who engage in a rich conversation on their own thinking about the role of teachers, and perhaps of the complexity of understandings of students and other teachers in their school settings. This requires a different perspective of teacher education, according to Britzman et al. (1997), who envisage a program for York University "that supports active and engaged learning about oneself and one's profession and one that respects the pedagogical power of persistent questioning because education is always lived as an argument" (p. 18). Engaging preservice teachers in examining assumptions underlying diversity and pluralism discourses in education can be extended by having them delve into contemporary local issues including specific school district policies, hiring practices, curriculum content, school traditions, and many other potentially rich sources of critical inquiry (Britzman et al., 1997; Solomon, 1997). Providing preservice teachers with more opportu-

nities to "roll up their sleeves" and engage in educational research themselves could offer a potentially rich avenue for personal and professional growth.

Shaping Innovative Practicum Experiences

Nontraditional formulations of field experiences for preservice teachers may also prove to be a rich source of learning. Britzman et al. (1997) propose placements outside of mainstream school settings as an opportunity "for the community to be understood as a site of identity for students and a site for extended teaching and learning" (p. 23). Community placements allow preservice teachers to interact with their students outside of formal school settings and, ideally, provide crucial "insight into advocacy, social change, and the institutions that serve the community" (p. 23). Several US researchers study and promote practicum placements in culturally diverse settings as a way of providing future teachers experiences with individuals and groups they may not have encountered during the course of their own education (Grant & Secada, 1990; Mahan & Rains, 1990; Noordhoff & Kleinfeld, 1993; Phuntsog, 1995; Sleeter, 1993, 1996). Through carefully structured and intensive immersion in a variety of community settings, practicum students become fully engaged in daily interactions with those whom they may regard as different from themselves. An ongoing support network and systematic debriefing can ensure increased benefits of such innovative, experientially based learning opportunities.

Fostering Professional Collaboration

An important finding in teacher education literature is that beginning teachers are more likely to find success and avoid early burnout when they establish connections with other professionals. This is of particular relevance to new teachers engaged in multicultural and antiracist education in their practicum and early career placements. In follow-up interviews with 38 students involved in an innovative teacher education program, Cabello and Eckmier (1995) found they stressed the importance of networks, a factor not included in their research questions three years earlier. What the early career teachers had valued most was "the opportunity to develop a support network among their peers and with university faculty.... [that] helped them from burning out at school ... [and served] as a source of support and professional enrichment" (p. 41). Programs encouraging this sense of connectedness with others in a similar position, and with supportive mentors, hold great potential benefit for beginning educators engaged in, and reflective on, innovative pedagogical practices.

Many educational researchers support the argument that successful teacher education programs must have built-in opportunities for collaboration. Cochran-Smith (1995) emphasizes the importance of preservice teachers discovering the value of collaboration with each other and with established professionals as well "in learning communities and networks where other teachers are struggling to understand and ultimately to improve the social relations of schools and classrooms" (p. 521). Collaborations can include partnering preservice teachers with each other, with interested faculty, and with members of the community who are also concerned with equity issues (Britzman et al., 1997; Richards, 1995; Solomon, 1997). Henley and Young (1989b) describe a broad view of collaborations on multiple levels:

> Within faculties this will mean building informal and formal networks of staff and students with similar commitments towards multicultural education; outside faculties it will mean developing much stronger ties with schools and teachers, communities, parents, and children, ties that do not end with certification, but which extend throughout the career of a teacher. (p. 41)

A lifelong commitment to working with others to challenge inequitable structures and practices seems a worthwhile goal for any teacher education program.

Conclusion

It is naive to expect to transform school systems or teacher education programs overnight. No one imagines that systemwide changes will happen without confronting a multitude of organizational barriers and challenges posed by academic institutions. Even so, changes such as those outlined above, driven by a shared commitment to various forms of equity education, will inevitably help shape Canadian public schools and education faculties as exemplary learning environments toward a more egalitarian future. Rather than avoiding the many problems associated with educational reforms, responsible educators must address them directly and immediately, capitalizing on what Sheehan and Fullan (1995) see as "the preconditions for convergence" of policy and practice currently existing in teacher education. Their candid comments on educational reform can serve as a wake-up call to educators and researchers committed to ethnocultural equity who realize that

> Change is difficult, research dollars are scarce, [and] work in schools and with teachers takes time.... However, to not attempt change is unacceptable. At issue is not only the viability of teacher education institutions but the long term health of our teachers and our schools. (p. 100)

Note

1. I appreciate the pressing need for a broader consideration of equity to encompass a variety of related concerns on lived experiences of discrimination, oppression, and injustice. The important theoretical work to be done will entail seeking to identify and understand the complex intersections of a number of categories of social identity and conflict, including cultural, ethnic, and racialized identities, gender, sexual orientation, class, and physical ability. A broad orientation toward social justice must also attend to individuals' multiple and overlapping identities. I anticipate that my specific attention to antiracist and multicultural education, loosely grouped here as ethnocultural equity education, might be perceived to work against a larger political project of coalition-building across other differences, yet it seems a prudent delimitation here considering the sheer scope of the literature in each field of study.

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Understanding Racial/Ethnic Stereotyping in Schools: From Image to Discourse

This article describes a study that explored the process of racial/ethnic stereotyping in one secondary school. In doing so it endeavors to provide an understanding of the more subtle ways advantages and opportunities are unevenly distributed among students. The article first furnishes a brief overview of traditional approaches to the subject of stereotyping, isolating a number of common elements in them. While acknowledging that traditional stereotypical analyses have produced much of value, I also point to a number of weakness in them. I go on to suggest that those interested in challenging these harmful stereotypes would profit from abandoning an accuracy-based approach and adopting one that sees stereotypical images as forms of contested discourse. Next I describe the prominent stereotypical discourses that show up in the school. Finally I provide suggestions for educators that will help them and their students to circulate alternative discourses that work in the interests of those who are often placed at a disadvantage by stereotypical discourses.

Cet article décrit une étude qui examine le processus de stéréotypie raciale/ethnique dans une école secondaire et ce, dans le but de présenter les moyens subtils par lesquels les avantages et les possibilités sont distribués de façon inéquitable parmi les étudiants. L'article débute en présentant un bref survol des approches traditionnelles à l'étude de la stéréotypie tout en faisant ressortir quelques-uns des éléments qui leur sont communs. Alors que l'auteur reconna"t que les analyses traditionnelles de la stéréotypie ont fournit beaucoup d'information appréciable, il souligne certaines des faiblesses qui caractérisent celles-ci. Il suggère en plus que ceux qui voudraient combattre ces stéréotypes nuisibles tireraient profit de la substitution de leur approche basée sur l'exactitude pour une qui interprète les images stéréotypées comme une forme de discours contesté. Suit une description des discours stéréotypés qui dominent dans l'école à l'étude. Pour terminer, l'auteur offre des suggestions qui faciliteraient la tâche aux enseignants et aux étudiants qui voudraient faire conna"tre des discours alternatifs qui agissent dans l'intérêt de ceux à qui les discours stéréotypés portent souvent préjudice.

Despite mounting evidence to the contrary (Alladin, 1996; Dei, 1996a; Giroux, 1993; McCarthy & Crichlow, 1992; Troyna, 1993), many educators continue to deny that educational institutions are racist in nature (Lee, 1996; Ryan & Tucker, 1997). In making their case they may point out that their particular organization, most of the colleagues with whom they work, and they themselves do not fit such a profile. How can we account for this apparent contradiction? Although there are no doubt many reasons for these contrary points of view, one may well revolve around the different possible interpretations of the term *racism*. One view, for example, sees racism as a series of persistent practices that systematically and unjustly allocate advantages to certain groups and individuals, whereas proponents of another perspective believe that it is the product of the occasional actions of a few deviant individuals.

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The latter view may just as likely be embedded in commissioned reports (Department of Education and Science, 1985; Scarman, 1981), academic treatises (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; Allport, 1954) as in the beliefs and practices of those who teach young men and women (Dei, 1996b; Ryan, Wignall & Moore, 1995; Troyna, 1993). It often equates racism with racial prejudice. Those who subscribe to this view believe that racism (i.e., prejudice) manifests itself in the irrational and ignorant beliefs and actions of a "few rotten apples" (Henriques, 1984). These bad apples, then, are thought to be the source of negative attitudes that are subsequently acted out in intentional and malicious ways against particular groups and individuals. In this latter view, disadvantage associated with racism is not systemic. Because racism is largely an individual matter, proponents of this perspective believe that it surfaces in a serendipitous rather than systematic manner. A few racist educators, for example, may occasionally penalize students on the basis of the latters' perceived racial/ethnic associations through their sometimes blatantly unfair treatment of them, depriving these particular students of opportunities that other students would normally enjoy.

The problem with this narrow conception of racism is that it cannot account for the systemic disadvantages that certain racial/ethnic groups of students experience in school. Indeed, xenophobic behavior represents just one aspect of the systematic and unfair distribution of advantages.[1] Although calculated and malicious acts of racial prejudice probably occur in schools more often than we would care to see or admit, they constitute only one (less common) way certain students may be placed at a disadvantage. Indeed most teachers are well-meaning human beings who have their students' interests at heart (Nieto, 1992). Even though educators' efforts may at times be misguided, it is hard to believe that more than a relative few would as a matter of course go out of their way to penalize particular students on the basis of their perceived heritage or skin color. It is more likely that it is the taken-for-granted beliefs and practices that teachers, administrators, and policy-makers hold and employ in their efforts to help students learn that inadvertently and systemically penalize some of these same students.

One important way these taken-for-granted beliefs and practices find systemic expression is through the creation and employment of stereotypes. In their efforts to cope with a perpetually evolving and changing world, educators and students often reach for popular and often unfounded images of groups and situations to help them understand, and act in, both familiar and unfamiliar circumstances (Boutte & McCormick, 1992; Dei, 1996a, 1996b; Elrich, 1994; Giroux, 1993; Lee, 1996; Ryan, 1996; Ryan et al., 1995; Solomon, 1992). These images can have a profound effect on educators. Among other things, they provide the basis for ways in which these people persistently see and interact with certain individuals and groups. Unfortunately, these interactions can work against the latter, seriously limiting their immediate and long-term opportunities. This article describes a study that explored the process of stereotyping in one school. I begin by developing a perspective on the process of stereotyping by reviewing approaches to the phenomenon, critiquing them, and settling on a notion of stereotypes as forms of competing discourse. Next I describe the research methods used in the study. This is followed by an account

of how various stereotypical representations show up and are contested in the school.

Stereotypes

The term *stereotype* has a relatively short history. First coined in the late 18th century to refer to the casting of multiple papier mâché copies of printing type from an original mold, it was based on the Greek words *stereos*, meaning form or solid, and *typos*, meaning the making of an impression (Miller, 1982). The concept of stereotype was first employed in social science by Lippmann (1922). Since then the concept has taken on a number of different forms (Henwood, Giles, Coupland, & Coupland, 1993; Mackie, 1973; Miller, 1982). Needless to say, academics do not all agree on its precise features. Even so, a number of elements, although not common to all views, remain prominent. These include stereotyping as a generic process of categorization that works through "good" and "bad" images, which in turn frequently misrepresent the groups they depict.

One key element in the various concepts of stereotypes is the idea that stereotyping is a process basic to all human beings. In this regard social scientists have used the term to refer to the images through which individuals categorize the world (Fishman, 1956; Gilman, 1985; Levine & Campbell, 1972; Lippmann, 1922). In this view a stereotype is a crude representation of the world. It is necessarily reductive, generalized by those who employ it as typical of that class of object for which it stands. The process of establishing and employing stereotypes, or generalizations in this view, constitutes a vital part of strategies that men, women and children employ to get on with their lives in a world where they have only a limited knowledge of their surroundings. We are forced to rely on what Schutz (1967) refers to as "typifications," which emerge from memories of our past experiences, to estimate what we can expect from the situations that we perpetually encounter in our day-to-day lives. We reach for these typifications as we adjust our behavior to suit situations that resemble to a greater or lesser extent situations that we have either previously encountered or at least know something about (Ryan, 1996).

Social scientists have also associated stereotypes with good and bad images. Gilman (1985), for example, associates the creation of these images with individual and group efforts to combat anxieties that arise with a perceived loss of control. He traces the roots of the distinction between "good" and "bad" to the process by which all human beings become individuals. It occurs first as the infant becomes aware that there are things in its immediate environment that are not part of the self. As the child is able to distinguish more and more between the world and self, it senses that it is not able to control certain aspects of its universe. When children develop into adolescents and eventually adults, they learn to minimize the anxiety associated with this lack of control by projecting "badness" onto what they cannot control.

However, most social scientists, including Gilman (1985), maintain that stereotyping is not exclusively a psychological or personal phenomenon. Rather, they see it as also a social process (Henwood et al., 1993; Merelman, 1995; Shohat & Stam, 1994; Wilson & Gutierrez, 1995). This means that we select stereotypical models from the social world in which we live. Indeed every

social group has a vocabulary of images for the externalized other. A product of history and of a culture that perpetuates them, these frequently rich webs of signs and references for difference reflect the particular contexts that give rise to them. They are also intimately associated with a society's communal sense of control over its world. These models are the medium through which the tension between control and its loss within individuals and groups, and the subsequent anxiety it produces, finds expression in the forms of the other.

Pathologizing the other through negative analogies is one way the self can protect itself from its own contradictions and from perceived threats from without. Searching for and degrading differences in skin color and physiognomy, for example, is a common way of responding to perceived threats to individual and group autonomy. It is not surprising, then, that the qualities assigned to the other generate patterns that may or may not have any relationship to any other reality. In fact many social scientists (Allport, 1954; Fishman, 1956; Mackie, 1973; Miller, 1982) either explicitly state or imply in their work that the stereotypical image characteristically does not accurately represent the group to which it refers. Although some maintain that there may well be a "kernel of truth" in such images, most concede that they are generally misleading, more often than not in a negative way. As a corrective to these mistaken images and the first step to generating more positive (and accurate) representations, some social scientists recommend more research into relationships between these images and the groups that they depict (Mackie, 1973).

In this view, then, stereotypes provide an essential, if not always benevolent, tool for helping us get on in our daily lives. In assisting us adjust our behavior to suit the particular circumstances in which we may find ourselves, these crude and often misleading representations serve to reduce the anxiety we may feel over the perceived loss of control that we routinely experience. At the same time, however, they are part of patterns of relationships that systematically and unfairly distribute advantages among and between certain groups and individuals.

Stereotypical Images as Discourse

Over the years those who have exposed and analyzed stereotypes, like a number of those social scientists cited above, have provided us with a valuable service. According to Shohat and Stam (1994) they have, for example, played a role in (a) revealing oppressive patterns of prejudice that at first glance may have appeared random or inconsequential, (b) highlighting the psychic devastation of negative portrayals of individuals and groups, and (c) signaling the function of stereotypes as a form of social control. In doing so they have drawn attention to some of the more subtle ways racism extends its reach and unjustly penalizes certain individuals and groups. Some of these approaches, however, have their limitations. In particular those analyses that revolve around a preoccupation with accuracy and a good-versus-bad image approach exhibit a number of theoretical-political pitfalls.

Shohat and Stam (1994) contend that an exclusive preoccupation with positive and negative images leads to a kind of essentialism. They maintain that those who adopt this approach assume, often implicitly, that the group being portrayed has a real essence and that this invariably benevolent nature is being

represented in unflattering and inaccurate ways. In their efforts to expose the significance of these frequently misleading images, these approaches tend to reduce complex varieties of portrayals to a limited set of reified and ultimately oversimplified categories. Media analysts, for example, may force diverse fictive characters into preestablished classification schemes. For these people, there is a "pickaninny" behind every Black child performer, a "mammy" behind every nurturing Black female. Static analyses of this sort do not allow for mutations, often ignoring the historical instability of stereotypes and the language that accompanies them. They fail to register, for example, the ways imagery might be shaped by changes in the economy.

A number of these approaches also subscribe to a one-to-one correspondence idea of truth. Unfortunately, this view displays a number of weaknesses. First and foremost, by presuming that properly assembled images can capture groups and individuals as they really are, they misread how individuals and groups are formed. Among other things, proponents of these approaches may believe erroneously that such projected images are merely tools for representing what for all intents and purposes are distinct and self-contained objects (e.g., groups, individuals). They fail to realize that there is always an important relationship between these portrayals and the groups and individuals that they depict. For example, the social position of a particular group will generally dictate how that group is generally portrayed, and these images will in turn have a decisive impact on the group in terms of, for example, how they see themselves and how others see them.

Proponents of traditional stereotype analyses also fail to see how representation is in fact a political process. They often do not recognize how these arenas of representation become in important ways sites of contestation. It is here that groups struggle over how they are to be represented, the outcome of which both reflects and dictates the fortunes of the respective groups. Given the contested nature of processes of representation, it makes more sense, then, to abandon the language of accuracy and authenticity and focus instead on discourses and how they work through the images we encounter. In this view, visual images or texts do not display inherent or fixed meanings. Instead, meaning emerges in the dialogue between the viewer and the image as the viewer attempts to make sense of what he or she sees. This sense can only occur, however, if and when viewers place their experience into discourse, that is, into available patterns of words, symbols, and images. Discourse, however, should not be equated with language. In fact it is a concept that attempts to combine language and practice, what people do and what they say (Hall, 1997). This means that the sense people make of their experience depends in crucial ways on who is doing the interpreting; what kind of experiences the interpreters bring to the event; the availability of words, images, and practices for making sense; and the social or institutional context in which the interpreters find themselves (Fiske, 1996). It is also important to acknowledge in this regard that discourse is both a noun, like language, and an activity, that is, a social practice (Fiske, 1996). As a consequence, not only should those interested in exploring stereotypes from this perspective probe the repertoire of already existing signs and symbols, but they need also be concerned with the continuous process in which sense is made of these symbols and subsequently

circulated. Discourses offer men and women "interpretive packages," a series of central yet perpetually evolving organizing ideas or frames, which become part of how they make sense of what they encounter (Merelman, 1995).

Discourses are not merely media for making sense. They are, as mentioned above, also the means through which power is exercised to promote particular interests. What discourses are made available or prevail at a given time and place will inevitably depend in crucial ways on prevailing power arrangements. These discourses or sense-making frames exert their power in part by filtering how our experience makes sense to us. In this view experience itself does not determine its own sense. Rather, the social power associated with the discursive processes dictates how the events associated with experience are placed into particular discourses, providing them with one set of meanings as opposed to others. These sets inevitably favor certain interests at the expense of others. Indeed they play a vital role in filtering the voices that eventually emerge in these discourses. Thus television can offer viewers various interpretive packages for understanding nuclear power, for example, that advance particular interests. Putting a "progress" spin on this topic provides space for certain voices and interests to be articulated at the expense of others (Merelman, 1995).

As emphasized above, discourse need not be seen as solely a technique of inequality, but also as a terrain of struggle. Fiske (1996) prefers to see discourse not merely as a tool for advancing certain interests, but also as a field of struggle in which various groups strive to have their voices heard and their discourse events placed into the politics of everyday life. In other words, discourse is not just a technology for repressing, marginalizing, and invalidating other voices and discourses. It is also the medium in which the latter are contested. Such contests often revolve around, for example: (a) struggles to accent a word to turn the way it is spoken or used to advance certain interests; (b) struggles over the choice of certain words or images; (c) struggles to recover repressed words or images; (d) struggles to disarticulate or articulate; and (e) struggles to gain access to public discourse or media to have one's voice heard (Fiske, 1996). Struggles over how groups are to represent themselves and others occur generally wherever cultural issues are at stake (Merelman, 1995). They take place routinely in art galleries, recording studios, television meetings, movie studios, newsrooms, local and national legislatures, courtrooms, school board meetings, and of course in the halls and classrooms of schools themselves.

In sum, the construction, use, and effects of stereotypes are perhaps best understood not in terms of more or less static, self-contained, and misleading images, but through the latter's insertion into historically rooted sense-making practices, that is, discourses. Among other things, associating stereotypes with discourses allows us to acknowledge and explore the perpetual and frequently unequal struggle over how groups are portrayed. As forms of discourse, these portrayals constitute at the same time artifacts and social practices, techniques for repression, and, perhaps most important, the terrain where struggles over representation occur. It is here that individual and group anxieties over control find expression, where various interests vie for supremacy, where some voices

are heard and others muffled, and where advantages and opportunities are distributed and eventually acted on.

This study explores how individuals in one school setting make sense of different others and how they use this sense in their interactions with these others. It looks at how the prevailing stereotypical discourses are reflected in the ways people talk about these different others and in how they act toward them.

Methods

This study is based on research conducted in one suburban school, which I call Suburbia Secondary School. The school itself is diverse and is located in an equally diverse large urban center (for a similar account of these methods, see Ryan, 1996). The school community itself is also diverse, both in terms of the financial well-being of the residents and of their heritage. Many of the students who attend this school come from families that are well off financially. Many families, however, are also struggling to make ends meet. The larger metropolitan area in which Suburbia is located has over the past 20 years become much more visibly diverse with the change in immigration patterns. Most of these immigrants no longer emigrate from western Europe as they once did. Instead many new residents come from such places as Hong Kong, Poland, China, India, the Philippines, Lebanon, El Salvador, Sri Lanka, Vietnam, and Guyana to take up residence in Canada (Statistics Canada, 1993). Many immigrants find this urban area a particularly attractive place to settle. As late as 1991 they constituted 38% of its population (Statistics Canada, 1993).

Suburbia Secondary School reflects this growing diversity. A recent school-administered survey confirmed this. It indicated that students identified with over 60 different heritages. The largest groups of students included students of Italian (18%), Filipino (14.7%), Portuguese (9.5%), Chinese (8%), and Polish (6.3%) heritage. At the time of this study the school was barely four years old; its student population topped 1,700. Student numbers had grown considerably since its first year, and as a consequence the school had to add a number of portable classrooms. The teaching staff is also young, and many of them were hand-picked by the principal. Almost all, however, are of European heritage.

The study was initially conceived to explore how teachers, students, and parents were responding to student diversity in this particular school. During the course of this study I worked with three other people: a research officer and two graduate students. We divided the data collection tasks among us and met regularly to talk about emerging themes and future strategies. First we observed the teaching practices of four teachers selected on the basis of their variation in teaching experience, subject expertise, and gender, and spent two days observing in their respective classrooms. In addition, we talked to them about their teaching practices and selected incidents that occurred during the course of the observations. We also interviewed a number of other teachers, guidance counselors, and administrators. In all we talked to 25 staff members. We also talked to the only two teachers who were not of Caucasian background, although we did not observe their teaching practices.

We also observed and talked to students. Like the teachers, these students were selected to represent as much variation as possible. Initially we looked for

student candidates in the classes we observed and eventually decided on their suitability after comparing notes. First we shadowed them for two entire days. We also talked to them about their school experiences. These were not the only students to participate in the study, however. We also conducted student focus groups and talked individually to students who we felt might provide us with unique insights. In one instance we sought out and interviewed a student who we believed reacted in a particularly constructive way to an ugly racist incident. In all 40 students participated in the study. Finally, we talked to a group of parents. Initially we tried to talk to the parents of the six students whom had we shadowed, and when this was not possible in all cases, we chose replacements with similar backgrounds.

In the initial stages of the study we met regularly to compare notes and, among other things, to pick out promising themes to pursue. One of the most prevalent of these proved to be stereotyping, which emerged early in the study as we had our initial conversations with students. These students drew our attention to the tendency of both teachers and fellow students to hold and act on stereotypical beliefs about different others. We decided at this early stage to pursue this phenomenon and subsequently looked for it in our observations in classrooms, hallways, and the cafeteria, and we asked pointed questions about it when we talked to teachers, students, and parents. Eventually, after all the data were collected, I isolated all descriptions and/or opinions regarding stereotyping and organized them for systematic presentation. What follows is a summary of this.

Recognizing Difference

The process of making sense of differences first entails that those making sense notice certain things about their environment that they identify or notice as "different." The first thing that most teachers, students, and parents point to as being different are others in Suburbia's school community. They consistently speak about the wide variety of differences that characterize the student population. Most refer to the myriad religions, languages, skin colors, heritages, home countries, interactional preferences, values, and so on associated with these students as *cultural differences.* Most of these mostly Anglo teachers have these cultural differences at the forefront of their thoughts, because only in recent years have they encountered so many children with cultural proclivities that may affect how they interact and learn in the classroom. Susan, for example, says with respect to the students population, "There's plenty of diversity, that's for sure."

One consequence of this high level of diversity is that many teachers know little about many of their students. Frequently they misidentify them. Margaret, for example, says with reference to the students, "They're not just Chinese or whatever. They're Indian. I'll see their last name and I won't be able to tell what it is. Portuguese or Pakistani or whatever." Students are conscious not only of teachers', but also fellow students' inability to identify them correctly. For example, Juanita, who is from South America, points out that she has been mistakenly identified at one time or another as someone from Asia, China, Portugal, Italy, or the Philippines. Unless the student's heritage is obvious, many teachers and students will not know the ethnic origin of many

students. This is particularly true in the case of Latin Americans, some eastern Europeans, and the wide range of Asian students. Identifying a student's heritage, however, may not always mean much for those interested in understanding their students, because there can be such a wide variation in even those groups perceived to be homogeneous in make-up. Erroneous assumptions of homogeneity or mistaken identifications can upset students. Katherine, a student of African heritage, is annoyed when others assume that she is Jamaican. She says, "Once people think you're Black, they think you're Jamaican.... I don't know if that is a real basis of being upset, but it hurt[s] me."

One of the consequences of this high level of diversity is that many members of this school community are often forced to rely on sources other than direct personal experience to make sense of whom they see as different others. Norman, for example, who was born in eastern Europe, maintains that many of the people he knows who emigrated from this area rely on movies for their knowledge of certain groups of people. He says, "A lot of the stereotypes are from movies 'cos they see the movies but they [people from his home country] don't see the [people] that get stereotyped." But even when direct experience plays a role in shaping understandings of groups and individuals, it generally is inserted into the dominant sense-making frames that circulate in and around the wider social milieu. In what forms, then, do these discourses show up in the school?

Dominant Stereotypical Discourses

Educators and students make sense of what they see as distinct groups in many ways. Some of these patterns, however, take precedent over others. They find expression in how students and teachers talk about others and in how they deal with them. Some of these discourses include the ideas that Croatians have a lot to say about themselves and their country; they are all nationalistic and sexist; Filipino kids seldom talk about their culture and thus are not necessarily proud of it; Polish kids are quiet and reserved; and Portuguese students are not troublemakers. Although these discourses circulate freely, others have a greater impact on how teachers and students perceive and react to certain groups. By this I mean that in conversations with teachers and students they emerged much more frequently than the above understandings. These include supposed physical and intellectual abilities of students of African and Oriental heritage.

The first and most powerful is the idea that students of African heritage, particularly males, possess unique physical abilities and will not hesitate to employ them when they see fit. Many students and teachers make sense of the talk and actions of these students by believing that these social practices are merely reflectors of their inherently violent natures. Teachers and students react in one of two ways. The first is to respond in an overly aggressive manner, although generally only a few teachers adopt this path. Riley is one of these teachers. He says:

> There's generally a segment of the Black students that I stereotype and they bring that on themselves. I'm very open in the beginning and they bring that upon themselves, where they have a major chip on their shoulder and everything that's done to them is done in discrimination. And that kind of student I treat

> differently lots of times, and that is the student that I'll go out of my way to discipline.

A more common reaction among teachers, however, is to do quite the opposite. Most teachers will go out of their way to avoid students of African heritage, particularly in the halls of the school, because many of them are intimidated by these young people. Gilby, a teacher, says, "A lot of teachers are afraid to deal with certain groups of students ... Teachers ... won't walk through the main office or the main hallway in the morning." Paul, another teacher, gives his view.

> The Black kids, they are effusive, as people, you know they are very verbal. They have got lots to communicate about, they dance around the place. They are very active, dancing is interesting, like they will stand in the forum downstairs, and they will dance, and this intimidates people, this intimidates some people. Like teachers, some teachers will come along and say, "Can you get out of here please? I don't want you doing that." You know if you are dancing, or you have your voice raised, or you are doing, you know or you bang the dominoes down hard in the cafe, that intimidates lot of teachers, because to them it means no discipline. It means that they are likely to do anything at any time. It intimidates a lot of teachers.

Marabel is one of those teachers who do not like to be placed in a potentially confrontational situation with male students of African heritage. She is clearly intimidated not only by their manner, but also by their apparent size. She says,

> There's some people, some Africans that sit in the northwest corner [of the cafeteria] and they always have on—you know, they're not allowed to wear jackets and hats but always have them on. So I always have to go over and tell them to take it off. And they're big, too, I guess that's the thing. It's not even that they're African, it's that they're big whereas the little Chinese and Filipinos are so small: It's no big deal to say, "Put your sweater on," whereas these guys are big and I just find that they're always, that they don't want to pay attention.

Teachers are not the only ones intimidated by African students. Some students are also afraid of them. Roger, for example, maintains that "If anyone's afraid of a group, it is probably the Blacks 'cause they see them as the loudest and most rebellious."

Associated with this discourse is a belief that there is a relationship between African heritage and sporting prowess. A number of people to whom we talked either believed that Blacks were all naturally good at sports or cited incidents that illustrated such a belief. Frances, an African girl admits that she tires of people who ask her about this apparent connection. She recalls one such incident.

> I went to a school track meet with my friend and there just happened to be a lot of Black people on the team. They all had to try out. And this White girl asked me, "How come Black people are so good at sports?" I said, "I don't know" ... I passed it on to somebody else to answer.

African students may actually be the subject of recruiting efforts. Jason, an African male, contends that certain staff wanted him to play football because they believed he had the natural skills to play the game. He says

> When I first came here—you know, you come to school to do what you have to do—I didn't want to join up for any sports. But for three months I kept being harassed by the teachers, and the teachers kept on saying, "Oh yeah, you know, you're Black, you can play sports; you know, what's wrong with you?" ... Like they do what they have to do to get you on the team if you're a good sportsman. But I didn't want to play any sports and they just kept harassing me. Then finally they got the hint.

Although many in the school community have much to say about African students' physical attributes, they have much less to say about what they believe to be their intellectual capabilities. Although teachers do not come right out and explicitly say that African students as a group are less able academically than other groups, this belief is implied in much of their talk. For example, they never allude to them when citing gifted groups, but may single out individuals as if they are an exception to the rule. Students, however, do not hesitate to draw attention to the unfair treatment they believe they receive from teachers who hold these beliefs about their academic ability. They consistently refer to the consequences of these unduly low expectations. Ilda, a young woman of African heritage says, for example,

> At the beginning of the semester, in school, when they hand out papers or anything ... to the rest of the people in the class, like tests, they sort of look at [others] like "You're going to do well," but when they hand it to me it's like: "Oh God, why bother?" And then when they see the marks they're like surprised. And they start questioning people around you, like, "Were you hiding your paper?" and then they make a big fuss about it. "Now, you have to cover your paper to make sure nobody is cheating off of you." Just because of that. Then, "Why did you cheat?"

Students find these expectations may place undue hardships on them, particularly if they are determined to do well in school. Maria, for example, believes that she has to exert considerably more effort than most students to overcome some of these barriers. She says, "You have to work twice as hard as every other kid in your class to [do well]. It shouldn't be that way."

On the other hand, both teachers and students believe that Asian and Chinese students are the most gifted intellectually. Jillian, a teacher, believes that Oriental students are superior, and she looks forward to their presence in her classroom. She says,

> The Chinese, the Japanese they all sit together and they're at the front. They're very bright, very bright. Brilliant. Which is wonderful. And then there is another boy that sits in the front, Ivan, who is right in the front too. And Theresa, and it is kind of neat how they all come to the front and do such hard work as they really are. So in that sense it is sort of, you can't label them but you know that. When I saw my class list I said, "Holy cow." I saw all the Chans and they are such hard workers that they set a good example for everybody.

It is not only teachers who believe that Oriental students are gifted intellectually. Students are also apt to believe this and may also believe that it leads to differential treatment. Billy, for example, says:

> If anyone thinks that a group is the smartest, it's the East Asians or the Orientals, because they've come from the Asian countries. So they're smarter. So they might see the whole group as being smarter.... If a teacher will get a paper from, say, a

> White student or a Black student and then get a paper from an Oriental student, and supposing it was a class regarding math or anything like that, they might be exactly the same, but they might generally favor, there might be a bias in the teacher's mind that the Oriental might be better.

Not all Chinese students may agree with such a generalization. One young Chinese woman, for example, worries that because she is not able to speak English very well teachers will think she cannot excel at math, which she believes she can. Teachers as well notice that some of these students struggle with some of their subjects, and others note that high expectations unduly penalize some of these students.

Not all members of Suburbia's community make sense of African and Asian students in these stereotypical ways. But because so many base their practice on these understandings, their actions marginalize discourses that represent these groups in other ways. In particular these views often override how members of these targeted groups see or make sense of themselves, as is evident in the above portrayals. William, a student of African heritage, addresses this matter head on. He is frustrated with how teachers and authority figures respond to him and his friends. He recognizes that others are "scared" of them but believes they feel this way because they do not "know how Black people act." He says that his and his friends' understanding of themselves does not get a reasonable hearing among other (more powerful) groups. Other groups have different perceptions of his group, and these perceptions generally dominate in interaction. To be sure this prevailing portrayal of these young people as threatening does not acknowledge meaningfully the views of the people being depicted. Unfortunately for William and many others whose voices are not acknowledged in the dominant discourses, these sense-making practices often place them at a disadvantage, depriving them of many opportunities that other students may have.

Discussion

As I indicate above, one useful way of understanding how young men and women of certain ethnic/racial backgrounds are systematically placed at a disadvantage in schools is through the practice of stereotyping. Unfortunately, traditional ways of conceptualizing stereotypes as mistaken images, although useful in helping us understand how racism works, have their limits. Seeing stereotypes as forms of discourse, on the other hand, allows those interested in resisting racist practice in schools to get around the mistaken essentialist assumptions of the former approach by viewing them as contested sense-making practices. For those who adopt this view the issue is not necessarily correcting mistaken images and beliefs, but rather finding ways to allow less recognized sense-making practices to emerge and circulate as equal forms of discourse. Such a task, however, brings many challenges.

Some reasons for these challenges are evident at Suburbia Secondary School. Many in this school community look to certain prevailing discourses to help them make sense of the multitude of often unfamiliar differences they encounter on a daily basis. Among many such discourses a few stand out. The most prominent of these concern the physical and intellectual capacities of students of African heritage. Many teachers and students attribute many of

their words and actions to the former's supposed inherent physical tendencies. They believe, for example, that many students of African heritage are inherently violent and have a natural ability to perform well in some sports. On the other hand, many teachers and students also believe that these same students are less able in academic matters than most others students, particularly Asian students whom they see as the most proficient in these matters.

These sense-making patterns, however, are not uniformly adopted or accepted by all in this school community. Suburbia is striking in that in some situations those to whom many of the prevailing discourses are directed do not understand themselves as specified by these discourses. Indeed, as illustrated, William maintains that he and his friends understand themselves in different ways than do others who adopt the prevailing understandings. That the understandings of most teachers and other students prevail is not the result of more accurate perceptions, but of struggles between and among these and other competing views. In the school setting, teachers who are more powerfully positioned and students who are numerically superior to students of African heritage are able to find ways to make their sense circulate more pervasively, and as a consequence count more than those of the former. The result is that this process does not always work in favor of these students. As illustrated above, teachers and students act on the basis of these perceptions, often in ways that unfairly punish the former.

The implications of using a discourse framework for understanding and eliminating more subtle forms of racism like stereotyping are fairly straightforward. First we need to understand that even though a stereotype may not coincide with some people's experience or present uniformly positive portraits of a particular group, it does not mean that educators should pull out all the stops to produce accurate and naturally virtuous images. Doing so threatens to gloss over the vital differences between group members, ignores the changing nature of groups themselves, and inevitably stretches the credibility of those engaged in this process to the breaking point. Attempting to circulate an image of William and all males of African heritage at Suburbia that is uniformly virtuous will accomplish little. Moreover, those bent on producing what they believe to be accurate images that are also universally positive will soon realize the futility of such an enterprise. Instead, educators need to realize that how William and his friends seem to others will depend on the sense that the latter attribute to their actions. Given that these actions can be interpreted in any number of ways, then, they need to find ways to ensure that alternate schemes for making sense are given space to circulate. These discourses need not be exclusively positive or bring with them claims of authenticity or accuracy, but they do need to work for rather than against those not well served by prevailing discourses. Educators will best serve students like William if and when they are in a position to examine their own taken-for-granted understandings critically, help others to do the same, and work with them to resist and replace oppressive discourses.

Perhaps the biggest challenge for those who wish to ensure greater opportunities for chronically marginalized discourses to emerge is the reality that discourses and the struggles associated with them inevitably transcend individual school settings. Indeed in the case at hand the outcomes of the some-

times one-sided struggles between and among sense-making patterns and those who employ them are not decided exclusively on the basis of the interactions that take place within the walls of this institution. The sense that William and his friends make of themselves and others does not take precedence in the school because the associated discourses that they use to make this sense have not fared as well as other competing discourses in struggles that go beyond this particular school. Evidence of the outcomes of such struggle are evident not only in other schools, but in many other institutions. For example, scholars have noted similar attitudes toward those of African and Asian heritage in schools (Dei, 1995; Lee, 1996; Solomon, 1992) and in Western culture generally (Fiske, 1996; Merelman, 1995; Shohat & Stam, 1994; Wilson & Gutierrez, 1995). As a consequence, introducing conditions in individual schools that allow previously less prominent sense-making schemes to compete on a more level playing field, although important, will in the end probably fall short of their goal if they do not in some way address the wider constellation of competing discourses.

There are many options for addressing both local and wider manifestations of discourse. One approach is to interrogate media that circulate forms of discourse over a range of settings and institutions and to use these understandings to critique and change both global and local understandings and practices. Two such modes of communication include the media themselves and curricular materials. A good place to start this process is to help members of the school community address the media. Indeed the power of the media in contemporary life and in schools is pervasive (Morgan, 1995), a fact not lost on one of the students above who blames the media for the stereotypical attitudes of many of the people from his home country. Contests of power won and lost have generated dominant media discourses that regularly depict people of African heritage as inherently violent and intellectually inferior and Asians as "model minorities." News programming (Fiske, 1996; Wilson & Gutierrez, 1995), cinema (Shohat & Stam, 1994), other television programming (Merelman, 1995) including "reality-based" police shows (Andersen, 1995), and the print media (Lee, 1996) have over the years regularly served up interpretive frameworks that invite audiences to make sense of African and Asian Americans and Canadians in ways that conform to the above views. The fact that these images dominate these media are the result of rather one-sided contests over what discourses will prevail in the respective media representations of contemporary life. Most media outlets are owned by White people of privilege who hire mostly Whites, who in turn generally give in to pressures that encourage them to approach their subject matter from angles defined in terms of the dominant cultural perspective (Wilson & Gutierrez, 1995). Unfortunately, opportunities for non-Whites to start up their own outlets appear even slimmer today as the media moguls attempt to cover all bases by spreading themselves over a variety of media forms. The advantage here goes to the larger (already White-owned) corporations that have the capital base to spread their investments across several technologies and to enter into alliances of convenience. Most non-White communities will find themselves priced out of these technological advances, able to participate in discursive struggles at only the most basic levels (Wilson & Gutierrez, 1995).

Those interested in providing greater opportunities for traditionally marginalized racial/ethnic groups would do well to assist students, educators, and other members of the school community understand how they and others are implicated in the circulation of mediated discourses, how they might resist these discourses, and how they might join with others to ensure that marginal discourses and voices have a chance to compete in the mainstream media. Among other things, this approach would take student experience seriously (Sholle & Denske, 1995) and provide people with skills to allow them to recognize and resist the often taken-for-granted dominant discourses embedded in media images. One way of doing this is through a *jujitsu* technique that uses alternative media productions such as *Babakiueria* to turn ordinary ways of looking at things on their head (Shohat & Stam, 1994). Developing individual decoding skills, however, constitutes only one step in a much larger strategy that would be geared toward helping marginal discourses and voices gain a more secure footing. Educators, students, and others in the school community also need to find ways to work together to exert pressure on media outlets and other corporate interests in ways that will encourage them to sponsor alternate voices in their communications.

Stereotypical discourses also circulate in curriculum materials. More often than not the product of profit-oriented conglomerates, they are generally widely circulated, assume a certain degree of authority, and regularly carry stereotypical discourses that encourage users to make sense of marginalized groups in unflattering ways (McDiarmard & Pratt, 1971; Sleeter & Grant, 1991; Walker, 1993; Whately, 1988). One strategy for eliminating stereotypical discourses from entering the classroom is simply to block certain curriculum materials. Not all agree that preventing materials from entering the classroom is the best strategy, however. Although Klein (1985) suggests criteria for identifying racist or inappropriate texts, she also believes that most energy should be directed toward readers and not reading materials. For one thing, the elimination of all books that contain elements of racism or bias is simply not realistic. It is seldom possible to replace all inappropriate books whether they are part of the curriculum or are available on the shelves the school library. Klein (1985) goes on to acknowledge that biased books can be used to good purpose. Simon (1992) also favors an approach that admits what some might consider inappropriate material into the classroom. He contends that the withdrawal of texts may not be the best way to contest stereotypical discourses. For Simon interrogating such texts in the classroom may be the better way to understand, contest, and overturn the more universal racist discourse and practices that regulate classroom readings.

First, teachers and students need to be able to recognize stereotypical discourses in curriculum materials. This is not always as easy as it sounds, particularly for teachers and students of the dominant culture who may take such things for granted. It is comparatively easy for them to overlook such discourses because they are frequently the benefactors of these ways of making sense, and as a consequence are not usually portrayed in unflattering or demeaning ways that would attract their attention. This is not always the case for those who belong to marginalized groups who are more often portrayed in unflattering ways in curriculum materials. It is, therefore, often easier for marginalized

people to recognize stereotypical and racist discourse. Because teachers and students have much to learn from students of marginalized groups, they would be wise to give them plenty of space to voice their opinions on these matters. In this regard Klein (1985) feels that teachers should encourage these young people to trust their own judgments in these matters. She cites the case of a 7-year-old Black girl who was able to identify at a glance what she knew from experience to be distorted or untrue in a text. Providing these sorts opportunities is the first step in ensuring that alternative discourses surface and circulate in the classroom.

Once teachers and students make it possible for alternative discourses to emerge in the classroom, they must also find ways to circulate them beyond the classroom and school. One way is through student- or community-run newsletters or newspapers. In Nova Scotia, for example, students at Cole Harbour District High School, a school that has experienced conflict in the past, put together their own newspaper and circulated it to the communities that feed into the school. In it they confront racial issues head on. They take the mainstream media to task for depicting the Black community in the area in stereotypical fashion as "economically depressed" (Thorne, 1998). Another strategy for going beyond the classroom is to organize protests of organizations that circulate inappropriate discourse. Klein (1985), for example, cites the case of a group of students who wrote letters to a publisher who circulated a book that the students found offensive. Although the publisher did offer an explanation, he did not offer to change anything. In the meantime under the guidance of the teacher, the students set about making their own book, which corrected what they believed to be the disagreeable representations of young people in the previously published text.

Focusing efforts on media that circulate discourses widely over various institutions and settings is an important part of strategies designed to challenge and eliminate stereotypical discourses in schools. Given that individuals at the local level can only make sense by placing their experience into these global discourses, it goes without saying that actions at the school level may not be all that successful if these wider patterns go unchallenged. Critiquing and challenging stereotypical discourses in the media and curriculum materials, however, also can provide students and teachers with opportunities to address their local situations. In the course of critiquing and challenging various media and curricular discourses, students and teachers will have many chances to understand how common stereotypical portrayals in their immediate surroundings work. Directly addressing, critiquing, and challenging these local practices in class may also have positive spinoffs. For example, giving William and his friends the chance to be taken seriously by providing them with opportunities to tell fellow students and educators how they understand themselves and others is one way to legitimize and circulate the sense that they ascribe to their world. Acquiring legitimacy in this way is an important first step in getting others to accept these understandings and eventually to change how fellow students and educators think of William and his friends and interact with them. Although these strategies will not provide all the answers, they represent a positive first step in enabling marginal discourses to complete

on a more equal footing and providing more opportunities for traditionally marginalized individuals and groups in educational settings.

Notes

1. Xenophobic behavior of this sort, however, need not necessarily represent a form of racism. Racially prejudicial actions on the part of African Americans or Canadians toward Whites does not necessarily abuse power relationships or serve to advance a differential allocation of advantages (Shohat & Stam, 1994).

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Challenges for Interpretivist Inquiry

The acceptance of qualitative methods into a firmly established objectivist tradition of research in education and educational administration creates particular challenges for researchers whose inquiry is rooted in subjectivism. This article focuses on subjectivist-interpretivist (s-i) inquiry and presents difficulties and dilemmas that s-i researchers may encounter as they conceptualize, propose, and conduct subjectivist inquiry in an academic community that remains traditionally systems-rationalist in nature. Drawing on experiences with individual and collaborative research projects and on observations of proposal adjudications, this article discusses challenges, choices, and compromises that researchers may encounter as they pursue inquiry in an interpretivist tradition. In addition, the author considers potential consequences of various choices and compromises for the integrity of specific research projects and for interpretivist inquiry in general. There seems to be a danger that the dominant paradigm may weaken the s-i position. Subjectivist-interpretivist research has shown enormous potential to contribute to our understanding of education and educational administration, yet much of this potential may be lost if s-i researchers become complacent about the consequences of the choices and compromises they make.

L'acceptation des méthodes qualitatives dans une tradition objectiviste bien établie de recherche en pédagogie et en administration scolaire apporte des défis tout particuliers pour les chercheurs dont les méthodes de recherche sont enracinées dans le subjectivisme. L'article porte sur les recherches subjectivistes-interprétivistes (s-i) et présente les difficultés et les dilemmes auxquels pourraient faire face les chercheurs s-i alors qu'ils conceptualisent, proposent et poursuivent leur recherche subjectiviste dans le cadre d'une communauté académique qui demeure foncièrement par un rationalisme systémique. Se fondant sur son expérience avec des projets de recherche individuels et collectifs, ainsi que ses observations du processus de sélection de propositions, l'auteur discute des défis, des choix et des compromis auxquels les chercheurs peuvent faire face en poursuivant leur recherche dans le cadre d'une tradition interprétiviste. De plus, l'auteur examine des conséquences (pouvant découler de ces choix et ces compromis) sur l'intégrité de certains projets de recherche en particulier, et sur la recherche interprétiviste en général. On déduit que le paradigme dominant risquerait d'affaiblir la position s-i. Alors que la recherche s-i s'est avérée riche en possibilités quant à son rôle à jouer dans notre compréhension de la pédagogie et de l'administration scolaire, une bonne part de ce potentiel risque de se perdre si les chercheurs tombent dans la complaisance quant aux conséquences des choix qu'ils font et aux compromis qu'ils acceptent.

Despite a growing acceptance of qualitative methods by social scientists, the systems-rationalist (s-r) tradition remains predominant in the fields of education and educational administration. Many researchers who adopt qualitative techniques maintain assumptions and conceptualizations similar to those of their quantitative colleagues. This acceptance of qualitative methods into a

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firmly established methodological tradition of objectivism creates particular challenges for researchers whose inquiry has roots in subjectivism.

In this article I consider a range of difficulties and dilemmas that researchers may confront as they conceptualize, propose, and conduct subjectivist-interpretivist inquiry in an academic community such as educational administration, which I contend remains predominantly systems-rationalist in nature. In my discussion of challenges, choices, and compromises that experienced researchers and graduate students may encounter as they pursue inquiry in an interpretivist tradition, I draw on my experiences with individual and collaborative research projects, as well as my observations of proposal adjudications. I describe paths that specific researchers have chosen, and I touch on implications of these actions for interpretive research. Although my own experience has been largely in the field of educational administration, the issues I raise are pertinent to inquiry in other areas as well. Furthermore, because administrators often make decisions that create or constrain possibilities for others, the work of scholars and practitioners in education can be affected profoundly by the theoretical underpinnings of administrative practice and by the accepted approaches to inquiry in educational administration.

I begin my commentary by clarifying two perspectives on research and by arguing that the predominant paradigm in educational administration remains systems-rationalist. Subsequently, I exemplify the two perspectives and raise value questions about which courses of action s-i researchers ought to take. I conclude by considering potential consequences of selected choices and compromises for the integrity of specific research projects and for interpretivist inquiry in general. I hold that enormous potential exists for s-i research to contribute to our understanding of human experience; however, much of this potential may be lost if s-i researchers become complacent about the consequences of the choices and compromises they make.

Two Approaches for Inquiry

I use the phrase *subjectivist-interpretivist*[1] (Carnahan, 1994; 1995) to describe a perspective that acknowledges the social world as constructed reality—a product of human action and interactions and of the meanings that social actors attach to their experiences (Berger & Luckmann, 1966; Denzin, 1989; Ellis & Flaherty, 1992; Greenfield, 1993d; van Manen, 1992). "The social world [is] not ... a world of causes and effects but ... a world of meanings that must constantly be negotiated and renegotiated" (Donmoyer, Imber, & Scheurich, 1995, p. 5). From this perspective, then, reality is value-based rather than factual (Greenfield, 1986; Hodgkinson, 1981; 1991). As Hodgkinson, Greenfield, and other s-i scholars point out, although facts and values are conceptually distinct, social scientists encounter "a world in which facts and values are inevitably and intimately intertwined" (Greenfield, 1993d, p. 181). According to s-is, the selectivity through which humans choose to focus on particular facts and to discount others, the interpretations that people place on their self-selected "facts," and the meanings that they construct around these facts preclude the possibility of so-called scientific objectivity in social-science research.

Subjectivist-interpretivist theorists contend that real-life situations are not clearly defined; rather, human experience is characterized by ambiguity, uncertainty, paradox, and dilemma. Specific events may be experienced quite differently by different individuals; one individual may attribute different meanings to the same experience or event at different points in time; and one individual may attach multiple (possibly contradictory) meanings simultaneously to a single experience. From this s-i perspective as well, organizations are human inventions: "they are simply manifestations of mind and will" (Greenfield, 1993b, p. 92). "Organizations do not think, choose or act as [systems-rationalist] theories claim; rather individuals do" (Cuthbertson, 1988, p. 20). Thus in exploring the social world s-i researchers tend to focus on individuals, attempting to reveal the meanings of experiences for the social actors involved. Subjectivist-interpretive theorists adopt methods and approaches intended to encompass both the complexities of the human condition and the values that underlie human actions and to capture the multiple meanings that individuals attach to their experiences. From this perspective, then, social science research will seldom lead directly to exemplary solutions of human problems; s-i research and theory can, however, illuminate what individuals do and why they do it (Greenfield, 1993e).

In contrast, systems-rationalist thought accepts an ordered and predictable reality that can be objectively studied and systematically improved (Fullan 1991; 1993; Leithwood & Steinbach, 1995). Systems-rationalist scholars explore a world they characterize in terms of cause and effect, a world they contend is shaped by factors that can be identified, manipulated, and controlled. Systems-rationalists presume that a desirable state, a best practice, can be objectively identified and described and that some state of (near) perfection can ultimately be achieved through logic and rationality. In their view researchers can and should remain objective and unbiased; so s-r researchers seek to stand apart from the reality they investigate. Systems-rationalist researchers claim to dissect and reconstruct that reality, to identify causal links, and to develop universally applicable laws. As Greenfield (1993b) explains in his analysis of systems-rationalism, according to this perspective "facts stand separate and independent from theories about facts ... it is possible to explain facts by theories and thereby gain control over them" (p. 94). Thus s-r theorists tend to work with clearly defined problems and to offer specific and prescriptive solutions to those problems.

A Predominance of Systems-Rationalist Thought

Whether one considers aspects of education or educational administration, it seems a body of s-r wisdom tends to guide contemporary practice in schools and school systems. Although s-i scholars have demonstrated valuable concepts, approaches, and techniques such as holistic learning (Miller, 1990), narrative inquiry (Connelly & Clandinin, 1990), and humane science in administration (Greenfield & Ribbins, 1993), their work has typically not transformed schools and school systems in fundamental ways. Of course, from time to time individual practice has been reconstructed; more often, however, as s-i notions have intrigued "objectivists," they have interpreted and modified the s-i ideas into systems-rationalism. Thus teaching and learning generally re-

mains rooted in rationalism of psychology, while educational administration has not escaped it roots in scientific management and rational organizational theory. Teacher development, which encompasses aspects of teaching and learning and aspects of educational administration, remains caught in systems-rationalism as well. Scholarship and practice in these fields are largely shaped by systems-rationalist thought. Because my own research experience has been primarily in a department of educational administration, I focus momentarily on that area to clarify and emphasize my point.

Over the last two decades scholars and practitioners have scrutinized and critiqued the traditional theory base for educational administration. Subjectivist-interpretivist scholars (Greenfield, 1993d; Littrell & Foster, 1995; Shakeshaft, 1995) have argued that the traditional empiricist approach to the study of human affairs is fundamentally flawed. Some emphasize the moral dimensions of leadership and administration (Greenfield & Ribbins, 1993; Hodgkinson, 1981; 1991; Rizvi; 1985), an aspect of administration that in their view is addressed inadequately by systems-rationalists. Others (Bates 1983; 1994; McLeod, 1978; 1988) highlight a view of power in organizations, which contrasts with the systems-rationalist conceptualization influence and power. Still others (Ikpa, 1995; Ortiz & Ortiz, 1995; Shakeshaft, 1989; 1995) draw attention to groups such as women and ethnocultural minorities that have been marginalized by the conventional research, theory, and practice in educational administration.

Practitioners too have observed the extant chasm between much of the theory and practice in educational administration. From time to time these practitioners have dismissed particular theories and research findings because these ideas seemed disconnected from their own lived experiences. Still, many school administrators continue to look to the body of systems-rationalist thought in educational administration to provide guidance and/or reassurance for their day-to-day practice (Scheurich, 1995).

In spite of a growing critique of conventional approaches to educational administration, and in spite of the distance between theory and practice, much of the theory and research in educational administration remains cast in a systems-rationalist mode. The enduring text by Hoy and Miskel (1995) *Educational Administration: Theory, Research and Practice* (5th ed.), the massive *Handbook of Research in Educational Administration* (Boyan, 1988), and the respected journal *Educational Administration Quarterly* are but three of the publications that attest to the inertia of this conventional systems-rationalist thought. Similarly, the programs for the annual meetings of associations devoted to the study of educational administration (e.g., Division A, AERA; CASEA) reflect a preponderance of quantitative and qualitative studies cast in the s-r tradition.

Theory and research in the systems-rational mode provide a comfortable and comforting vision of schools and school systems. Systems-rationalism suggests that some "best way" does exist and that a continued search for "objective" factors that can be manipulated and/or controlled will lead to more desirable educational and administrative practices. Thus s-r wisdom shapes much of the administration and policy-making for schools and school systems. In contrast to the s-i vision of a world characterized by ambiguity and paradox, a world in which administrative action leads not to absolute solutions, but to

further challenges and dilemmas, systems-rationalism offers an illusion of a world of clarity. The apparently unbiased understanding of schools, which grows from systems rationalism, implies that if administrators follow the actions prescribed by s-r theorists they can certainly improve the quality of schools and schooling.

This body of s-r wisdom regarding administrative practice has led to an abundance of training programs for educational administrators (Gronn, 1996). Similarly, this s-r wisdom has generally guided selection, evaluation, and promotion in school systems. Images of so-called effective principals (Leithwood & Montgomery, 1986; Leithwood & Steinbach, 1989; 1995) and effective schools (Holmes, Leithwood, & Musella, 1989; Purkey & Smith, 1983) are often reflected in criteria by which administrators are chosen; these images also create a context in which appointees are further socialized to existing organizational norms and values. Thus these s-r images strongly influence how many administrators go about their daily work. Any practitioner who questions the assumption of "one best way" is likely to become marginalized from the processes of policy-making and system administration.

The results of s-r research tend to shape practice, and this practice in turn creates demands for further research in that same s-r tradition. Furthermore, in a context of economic restraint, s-r research, particularly that which claims to lead to exemplary practice, may appear to offer the "wisest" investment of scarce research funds. For example, over the past few years, in calling for research proposals, officials of Ontario's Ministry of Education and Training have emphasized best practices—encouraging researchers to identify, describe, and dissect exemplary aspects of schooling that the officials believe can subsequently be transposed more or less predictably across the province (and beyond). The search for, and description of, best practices, however, generally leaves unexamined the value bases on which these definitions of excellence stand. Thus, although s-i researchers may discuss and/or strive to reveal value positions, ministry officials are likely to find their proposals less practical. The cycle of research and practice that tends to perpetuate s-r thought clearly presents challenges for s-i researchers who reject the notion of a predictable, controllable, perfectable world.

Challenges, Choices, and Compromises

I do not emphasize the so-called paradigm debate, nor do I specifically discuss arguments regarding mixed methodologies. Carnahan (1993, 1994), Green, Caracelli, and Graham (1989), Greenfield (1993d), Pitner (1988) and others have addressed these issues in detail. Instead I have chosen to present some of the challenges for researchers who attempt to pursue inquiry in the s-i tradition while the field in which they work remains largely shaped by systems-rationalist thought. In the following sections, therefore, I focus on the research experience; I highlight challenges, choices, and compromises that various researchers[2] have faced (or may face) as they attempt inquiry in an interpretivist tradition.

Challenges Associated with Proposals

Because many adjudicators and evaluators of proposals for research in education and educational administration hold s-r views, s-i researchers face difficult

decisions as they propose work cast in a less popular tradition. These s-i researchers do not seek universal, predictable patterns; instead, they typically direct their attention to the individual, the unique, and the particular, attempting to reveal the meanings of experience for those involved.

Although a routine occurrence, a specific issue, an unusual event, or some particular "itch to know" may prompt s-i researchers, the precise questions that guide their inquiry are often shaped and reshaped as inquiry progresses. At the same time, although these s-i researchers pursue their studies in a particular perspective, they do not generally begin with predefined, specific conceptual/analytic frames about the phenomena under study. Instead, these researchers develop their understandings of the phenomena and their interpretations of their data through ongoing exploration of literature. In time this interactive process leads researchers to frameworks they consider appropriate for their emerging analyses.

Similarly, although s-i researchers often have some general sense of the kinds of data they will collect, they often develop the specific procedures throughout the research process. In the same emergent way, s-i researchers do not typically prepare an extensive and explicit plan for data analysis in advance of the analysis itself. Although they may bring preliminary organizers to analysis, s-i researchers often discard these initial conceptualizations as more appropriate organizers emerge either from the data or through an ongoing review of literature. The research process from an s-i perspective involves understanding and describing reality according to the perceptions of those involved in its construction. Thus accepting a conceptual or analytical frame in advance or restricting data collection in particular predefined ways imposes meaning on the reality s-i researchers seek to explore rather than assisting them in extracting meaning(s) from that reality. Researchers using ethnographic methods to study aspects of education and educational administration (Ball, 1988; Carnahan, 1994; Donmoyer, 1995; Wolcott, 1973; Woods, 1986) may immerse themselves in a particular setting and over time clarify the direction of their inquiry as they interweave data collection and analysis in a continuous and cyclical process of extracting meanings and developing interpretations.

In the world of systems-rationalists, however, studies with emergent designs tend to appear inadequate. Systems-rationalist researchers typically seek universally applicable laws, predictable patterns, causes, and effects. Thus these researchers normally identify conceptual frameworks that define the phenomena, enunciate clear and specific research questions and subquestions, specify the data they will collect, and select frameworks to guide analysis before they begin to collect data. Although various scholars in this mode have moved beyond the traditional methods of natural science, beyond measurement, questionnaires, and statistics to include qualitative techniques such as interviews, journals, and observations, s-r researchers who study education and educational administration typically undertake their inquiry to identify factors, patterns, and interrelationships that they subsequently generalize to broad populations. With a plan of research more or less clearly established in advance, systems-rationalist researchers tend to dissect a phenomenon in order to describe excellence or to identify "essential" patterns for improved practice.

Given this context, experienced researchers seeking research grants and graduate students designing thesis research may face a number of challenges and choices as they propose to study education or educational administration in an s-i manner. For example, one important choice involves the selection of research colleagues. "With whom shall I work?" Another set of choices involves consideration of the "jury." "Who will judge the proposal and how closely should I craft the proposal to match the expectations of that jury panel?" Thus interpretive researchers may grapple with decisions regarding how many specifics to determine (or at least suggest) in advance of the study and which particular aspect of their inquiry to set out in the text of a particular research proposal. An additional challenge for experienced researchers seeking funding for s-i research involves justifying the substantial budgets often associated with labor-intensive research.

Colleague Compatibility

The choice of colleagues presents a particularly important decision for s-i researchers. Some years ago I had the opportunity of observing four other researchers conducting inquiry about how the organization of secondary schools contributes to the "problem" of dropping out. These four individuals with various sociological perspectives had agreed to investigate this issue of common concern collectively. One of the researchers proposed a project consistent with s-i thought. The other three proposed studies that in my opinion involved varied degrees of "objectivity." In paradigmatic terms, it seemed that these three researchers held views that fell within a functionalist paradigm (Burrell & Morgan, 1982). Although at the time my own work was moving away from objectivist traditions, I had agreed to assist this research team with the statistical analysis. Thus I attended meetings of the principal investigators as an interested observer, and with their consent later wrote about the research process (Wignall, 1989).

As they began their collaborative project, the four researchers agreed to prepare a common literature review and to coordinate their data collection. At the same time they recognized their divergent approaches and planned to write separate case chapters for the final report. Still, from the outset they agreed that the project report would conclude with a collaborative chapter integrating and synthesizing the four lines of inquiry. As events unfolded, however, the s-i researcher and her work became marginalized both throughout the research process and in the final written report. The dominant paradigm, in essence, governed the study. To begin the team conceptualized and expressed the overall research problem in the tradition of systems-rationalism, focusing on factors that affect retention. As the work progressed, the team expended far more resources (time and money) on the rationalist portions of the project. Although the s-i researcher assisted with the development, administration, and analysis of project questionnaires and conducted interviews that were suitable for the work of other team members, the data collected by the s-r researchers were of less value for her interpretive study. In their interviews and observations the s-r researchers brought specific, well-defined conceptual and analytical frames that imposed meaning on data rather than capturing the lived realities of the participants. As the team developed the project report the

rationalist views predominated. Although the team included a collection of interpretive studies in the literature review, in the final writing this body of work was set as secondary—as work that suggested interesting notions, but notions that themselves needed confirmation by broad-scale, generalizable (perhaps quantitative) studies. This same subordination of s-i views occurred in the final chapter where the findings from the interpretive inquiry received secondary status. It seems that the strength of numbers (three researchers versus one), the power of accepted modes of inquiry (Mackie, 1989), and the expectations of educational administrators whose practice is typically rooted in functionalist thought added credence to the objectivist, s-r research.

The present funding trend, which encourages large-scale, multi-researcher projects and partnership initiatives, is changing the nature of the research experience for many academics. Collegiality among faculty members, the tradition of respecting one another's academic work, and the desire to maintain enduring, amicable, professional working relationships raise a number of dilemmas for many researchers involved in collaborative work. Researchers whose work is cast in a less popular, s-i tradition, and who become involved in collaborative projects with researchers working from other paradigms, may find these quandaries exacerbated. For when judged by traditional criteria, aspects of their s-i work might seem weak or inadequate. When and how should these s-i researchers challenge the s-r tradition? When do concessions made in a collaborative venture compromise the integrity of an s-i substudy or line of inquiry?

Students' work may be affected by both colleagues and supervisors. Decisions regarding thesis committee members (or proposal/thesis examiners) tend to shape to some extent the nature of the work. For example, I have observed several graduate students who through their graduate courses became open to the possibilities of interpretive research and so began their thesis journey with an interpretivist orientation. In several cases, however, although committee members attempted to support a student's efforts and directions, all advisors were not equally committed to interpretivist approaches. Consequently, as each student's work progressed, advisors less committed to s-i research than the student and far less familiar with the data and the methodology offered well-intended advice. Yet as these students accepted pragmatic suggestions for techniques and frameworks, their work moved away from interpretivism. Ultimately the advice imposed external meaning on a subjectivist dataset rather than extracting meanings from it.

Adjudication

In addition to choices concerning research colleagues, other concerns at the proposal stage involve the presentation of ideas. More specifically, a typical group of evaluators gathered to evaluate proposals in education or educational administration is likely to include several members who subscribe to s-r traditions. To what extent should an interpretivist set out tentative details of proposed inquiry in fairly specific ways? Systems-rationalist researchers value clearly enunciated research questions, predefined conceptual and analytical frames, and precise plans for data collection and analysis. For s-i scholars, however, questions, frames, and procedures emerge and evolve during the

research process per se. Consequently, in attempting to obtain endorsement of, and/or funding for, particular projects, s-i researchers may contemplate a range of concessions to s-r thought. At what juncture do these decisions begin to compromise the integrity of the research?

A few years ago, for example, a colleague and I proposed a study to document challenges that school administrators faced in the day-to-day operation of their schools and to collect their reflections on how their professional training and personal experiences had prepared them to meet these challenges. We anticipated that administrators would identify specific challenges that were particularly relevant or meaningful for them and that they would share the details and their understandings in unstructured interviews. We knew, however, that for a particular grant competition the adjudication team included field-based personnel as well as academic scholars (both qualitative and quantitative researchers). Thus in our proposal we specifically discussed our decision not to seek "exemplary" administrators, because in our view any definition of excellence has a value base. We explained that in all likelihood various stakeholder groups would have alternative (quite possibly conflicting) views regarding the characteristics of exemplary administration. As we developed our proposal we chose, however, to refer to specific frameworks that might describe problem-solving practices and to include a conceptual framework that might define problem areas. In spite of our efforts to explain ourselves and to offer potentially specific approaches we did not receive funding for this proposal. The committee criticized us on several grounds: we had not focused on exemplary practice; our sample of 30 administrators was too small; and our findings in the opinion of the adjudicators would not provide generalizability. From the feedback we received we concluded that the committee rejected our proposal because the research design did not meet s-r criteria.

Although in some ways we felt disheartened by this feedback we persevered and revised our proposal. In a subsequent grant submission we indicated that on completion of the interview phase we intended to select two or three individuals whose practice appeared to be exemplary and to shadow these principals for an extended period. Finally, we proposed a survey questionnaire for a much larger sample of administrators (essentially to confirm findings from the earlier "interpretive" stages). This time the project received funding. Although this funded proposal contained a number of compromises, at the time we believed these changes would not jeopardize the integrity of our work. Nevertheless, these kinds compromises do tend to reinforce s-r positions: (a) that exemplary practice does exist and can be clearly identified; and (b) that interpretive research merely provides preliminary insights that need confirmation by larger-scale, "broadly generalizable" s-r research.

Funding

Another challenge for s-i scholars proposing research studies involves justifying the time and costs associated with data collection, especially when observations, interviews, and transcription merely produce "soft" data. (And even though Levin, 1976, and Greenfield, 1979, have suggested that so-called hard data may more appropriately be described as "cheap" data, the criticism of interpretive research continues in the field of education, particularly educa-

tional administration.) Grant committees with limited research funds face complex challenges in ranking proposals and determining appropriate and equitable allocations for projects cast in alternative traditions. Proposals from s-r researchers often appear to promise clear and specific solutions to contemporary difficulties and problems. Although in the end such promises may not be fulfilled, at the adjudication stage these studies are likely to appear more relevant, more practical, more generalizable, and so more important to s-r researchers and/or practitioners on selection panels. Therefore, in the competition for funds, large survey works may have an advantage because they seem to promise more valuable results and to offer effective and efficient use of scarce resources.

Challenges in Fieldwork

Subjectivist-interpretivist researchers encounter a range of challenges associated with their work in the field. For example, gaining access to a research site can become a particular challenge for interpretivist researchers. The world of many gatekeepers itself is shaped by s-r thinking. The kinds of research questions valued by administrators often differ from the questions enunciated by s-i investigators. As a result, gatekeepers holding s-r views may refuse access for projects that appear relatively unimportant when compared with s-r studies. Similarly, key individuals in a particular research site may also hesitate to participate in s-i projects because they question the merits of the work.

Potential participants may also be concerned about the demands that s-i research places on them. For example, the extensive time commitment may discourage busy educators and administrators from participating personally in an interpretivist project. Educators and administrators may also be concerned about informed consent and decline to participate in interpretivist studies with emergent design. Moreover, administrators accustomed to controlling situations and managing those around them may find the potential loss of control over the reporting of interpretive research extremely disconcerting. For example, in the event of a particular high-profile case, a researcher cannot always guarantee anonymity to participants. Although association with a "positive" case may well enhance an administrator's career prospects, association with a "neutral" or "negative" case could conceivably damage a promising career. Thus gatekeepers and potential participants who view the world through s-r lenses periodically create obstacles for s-i researchers. Still, gaining access to a research setting obviously remains an essential step for any researcher. An s-i researcher who cannot convince gatekeepers and potential participants of the value of a project will be unable to proceed with his or her work. Consequently as s-i researchers describe their proposed studies to gatekeepers and potential participants, they may consider concessions or make particular presentations intended to accommodate expectations rooted in the s-r thinking of certain educational officials. To what extent are such concessions or representations appropriate?

I recall an instance when in order to gain access to a key school a research colleague accepted certain conditions. He agreed to return transcripts to participants at one site and to offer these participants editorial license over their quotations in all publications stemming from the project. Moreover, because

the particular school principal was accustomed to (and insisted on) "calling the shots," the researcher also offered him final editorial privilege. In the first instance, no member of the project team objected to this decision, although no one else found it necessary to make similar commitments to gain access to other sites. Only at the end of this project did we realize many of the implications of these concessions. The participants at the one site exercised their editorial licenses quite liberally, translating their comments, which had initially been transcribed verbatim, into formalized written text. As a result, in our final project report most case reports presented conversational excerpts (with occasional sentence fragments and incomplete thoughts) that appeared free flowing and natural, whereas in one case little if any spontaneity remained evident in the well-edited "conversation." Thus the characters from that site remain rather flat on the printed page; the spark of the school does not shine as brightly in the report as it was experienced by the researchers who visited the site. Furthermore, the school principal occasionally imposed his judgment on the text, and so the story from the school also remains somewhat incomplete. Nevertheless, the research team believed the site to be critical for the study, and the researcher involved at the site felt he would have risked access or been unable to report his findings from this important site had he not accommodated the wishes of participants.

Another practical consideration of interpretive research relates to the emergent nature of the work. Every story, it seems, leads to another story, and researchers occasionally find it difficult to conclude data collection and/or analysis. Unlike s-r research, which is typically well planned in advance of the research process, interpretive work tends not to involve predetermined structures and arbitrary timelines. However, participants in such projects may prefer some containment, if not predictability. Educational administrators, for example, accustomed to rational planning often expect a clear structure for the research process and may, therefore, undervalue projects with emergent designs that appear to lack rational planning or rigor. Administrators may become concerned about emerging demands on staff time that in their view could undermine the effective operation of a school. Similarly, administrators are likely to appreciate some degree of certainty regarding their own participation in a research project. Thus administrators may withdraw themselves and/or their school from a study as it expands. Even when administrators remain personally committed to a particular line of inquiry, they may find themselves transferred to new responsibilities; alternately, circumstances at the site may change and administrators may prefer to withdraw individually or institutionally from a study. Thus interpretivist researchers may encounter frustrations as they recognize intriguing and important issues just as particular participants or a research site withdraw from or curtail the study. To what extent should a researcher press for continued access?

Another important issue for all researchers involves ethics and the integrity of their work. For s-i researchers, however, particularly thorny issues may well arise during the research process. Lincoln and Guba (1990), Magolda and Robinson (1993), Dickson (1995), and others (Cassell, 1980; Glesne & Peshkin, 1992; Punch, 1988, 1994; Sieber, 1982, 1992) discuss a range of such concerns in detail. At the outset of a project an s-i researcher may not anticipate the full

scope of issues that ultimately emerge. Thus they may overlook particular considerations and fail to implement appropriate safeguards—those that protect participants and those that protect researchers. One might hope that a formal ethical review process would alert a researcher to potential difficulties and provide her or him with advice and guidance. However, because s-r thought dominates the field, the composition of an ethical review committee in education or educational administration is likely to reflect this s-r perspective. Potentially complex issues and possible pitfalls of an s-i project may go unnoticed by reviewers who themselves conduct s-r research. Informed consent illustrates such an issue. A research protocol, for example, may describe an s-i project that appears to have little or no risk for participants, yet during the research process, as events unfold, risks for participants may become more apparent. Similarly, at the outset of an interpretive study a researcher may offer a guarantee of anonymity to participants, yet as unique aspects of the particular case or phenomenon present themselves, the researcher may be unable to honor this undertaking. Although researchers often resolve these issues as they emerge, timely advice from colleagues familiar with s-i research may avoid the possibility of revising or canceling a project in progress and so facilitate the smooth conduct of ethically defensible research. What kinds of collegial support regarding ethical conduct and integrity of research can an s-i researcher reasonably expect?

The final challenge related specifically to fieldwork that I address here involves mixed allegiances to participants and to funding agencies; it concerns the possible withdrawal of key participants toward the end of a funding period. Certainly the fundamental issue of participant withdrawal affects student work as well, but I focus here on funded research. Although I have not yet personally experienced participants withdrawing toward the end of a research project, the possibility continues to perplex me. For example, circumstances in the lives of various participants have delayed progress on my own study of educators living with potentially life-threatening illness who remain able to work. Although the funding agency (in this case SSHRC) has generously extended the grant period, issues regarding the most appropriate allocation of funds still perturb me. How closely should a researcher remain to original plans? What allocation of resources will produce a more valuable report—or at least a report worthy of the funds expended? What allegiances does a researcher have to individuals who initially agreed to participate but who for extended periods have been unable to participate in interviews and other research activities? How should a researcher balance responsibilities: to the granting agency that expects a meaningful report within a reasonable time frame; to those who have completed their participation; and to those who have agreed to share intensely personal stories, who have already invested considerable time and energy in the project, but who for reasons beyond their control have been unable to participate for some time?

Challenges of Dissemination

In addition to issues that emerge from the process of inquiry, further challenges arise in reporting interpretivist research. As I suggest above, in the telling of research certain stories will be expressed while others may be silenced. What

implications does this selective reporting have for the integrity of research? Dickson (1995) speaks of this issue in detail. I share but one example from my own experience here. On completion of a particular study of several secondary schools, our research team sent copies of the report to participating schools. A few months later I received a call from a teacher at one participating school who had not participated in the study but who claimed to recognize his school in our final report. This teacher contended that the principal had "controlled the selection of participants" and "contaminated" the data. Furthermore, the teacher requested a meeting "to present the other side of the story." Although I refused to confirm or refute his suspicions regarding the identity of the site in the report, I was able to assure him that criteria established by the project team and not particular preferences of individual school principals had guided the selection of participants at all sites in the study. Nevertheless, because this teacher knew that data had been collected for our project in his school, I did agree to meet with him and to discuss general issues concerning research. Through that conversation I learned more about this school, and after our meeting my thoughts wandered to a range of *what-ifs*. What if that teacher could direct me to another important story—would I have a responsibility to attempt to follow it? What if that new story contradicted the original report? What if this teacher had been able to convince me that the principal had controlled the selection of participants, would I have an obligation to amend the original research report?

Issues such as the potential identification of participants, fictionalization to preserve anonymity, and shared authorship with participants are among the issues related to dissemination that concern many researchers. For s-i researchers, however, reaching the desired audience becomes a further challenge. As I suggest above, many mainstream conferences and publications are rooted in s-r thought. As a result, interpretivist reports may not readily meet selection criteria for presentation or publication in conventional forums. And although s-i researchers may find sociologically oriented journals that report qualitative studies more receptive to their work, these publications may not reach the particular audience (e.g., researchers and practitioners of education and educational administration) that a researcher wishes to address. Thus in the dissemination phase s-i researchers may feel pressure to step beyond description and to make specific (even prescriptive) recommendations for practice in order to meet s-r criteria for quality and to increase their chances of publication or presentation in particular venues. What concessions should an author consider in order to further dissemination and to ensure her or his work reaches a particular audience?

I have mentioned but a few of the challenges, choices, and compromises that continue to confront s-i scholars. Subjectivist-interpretivist research, it seems, is rife with dilemmas. As s-i researchers continue to inquire into aspects of education and educational administration, they will take decisions that affect more than their own work. Their decisions hold implications for the broader research community.

What Future for Interpretive Research?

In various ways, techniques of subjectivist-interpretivism have been adapted and incorporated into the tradition of systems-rationalism. At the same time, s-i researchers may periodically make choices or compromises that bring their own work more in line with systems-rationalism. How will this process unfold?

Qualitative research methods, initially denigrated by the rational empiricists, have more recently been acknowledged as appropriate by many educational researchers, whether or not their own work integrates these approaches. Not so long ago, for example, researchers adopting qualitative methods devoted considerable space in proposals and research reports to address questions of objectivity and researcher bias and to argue for the validity of their alternative methods. Today, however, qualitative methods (if not methodologies) have become acceptable (even desirable) forms of inquiry in the study of education and educational administration. Although researchers often include a rationale for their research design, the nature of their commentary has changed; they now tend to focus their argument on the appropriateness of methods for their particular research problem rather than justifying qualitative methods per se.

Many researchers who adopt qualitative methods for the study of education or educational administration continue to cast their work in a systems-rationalist mode. In other words, these modern s-r researchers adopt strategies such as interviews and observations to their study of causes and effects in a world that they conceive as ordered and predictable. They develop research instruments that appear objective and call on analytical frames that stand separate from their data in a search for generalizable findings. Even so, not everyone concerned about education and educational administration has fully accepted these qualitative approaches. Some researchers (Pitner, 1988; Willower, 1980) conceptualize qualitative studies as "a kind of lower level of approximate empiricism" (Greenfield, 1993d, p. 175) that "must be validated through later quantitatively oriented theory and inquiry" (p. 117). In much the same way, many policy-makers and educational administrators continue to place more credence in quantitatively based theory and research.

The concept of values—set aside in Simon's (1957) science of administration—has, for example, reemerged as a respectable focus for inquiry in educational administration. This recent emphasis appears to acknowledge the interpretivist critique of Greenfield, Hodgkinson, and others regarding traditional approaches to the study and practice of educational administration. For as Greenfield (1993a) explains, "the world of will, intention, experience and value is the world of organizations and administration.... Administrators represent values ... they also impose them" (p. 153). The concept of values expressed by Greenfield and the importance of values in the practice and study of educational administration that he describes differs substantially, however, from the directions that some (Begley, 1988, 1996; Campbell, 1992; Campbell-Evans, 1988; Holmes, 1991) have taken as they seek to classify objectively, perhaps even to prescribe, desirable values in administration. As Greenfield (1993d) explains, "values lie beyond rationality. Rationality to be rationality must stand on a value base. Values are asserted, chosen, imposed or believed.

They lie beyond quantification, beyond measurement" (pp. 182-183). By introducing the term *values* (although not the concept as Greenfield conceives it) into systems-rationalist scholarship, s-r researchers appear to respond to elements of Greenfield's critique. Yet this move may ultimately weaken the position of those who seek to study Greenfield's value-laden world of administration in an s-i manner. Similarly, as s-r researchers acknowledge and adapt s-i methods and techniques, they may appear to consider, if not address, challenges posed by s-i scholars who have critiqued the traditional field of research in education and educational administration. In the face of such co-optation, it may become increasingly difficult for s-i researchers to preserve the integrity of subjectivist-interpretivism.

Perhaps more important yet are the implications of choices and compromises made by s-i researchers themselves. At any stage of their research, from proposal, through fieldwork, to dissemination, s-i researchers seeking recognition (or approval) for their inquiry may, to some extent at least, recast their work in ways that more closely reflect s-r expectations. Thus, as s-i researchers respond to difficulties and dilemmas associated with their own research, they may from time to time make choices and compromises that ultimately sustain rather than challenge s-r thought. Paradoxically, however, compromises taken by s-i researchers may lead to a productive dialogue with s-r thinkers. For, in spite of the predominance of s-r thought in education and educational administration, a number of scholars and practitioners believe that their work ought to recognize and encompass the complexities of human existence.

In my discussion of the challenges of conducting s-i research in a field dominated by s-r thinking, I consider a range of issues and dilemmas. Although I recognize that open-mindedness, flexibility, and adaptability are themselves essential to s-i inquiry, I am personally perplexed by the implications of certain concessions I have made in order to complete various projects. At times I fear my actions may serve to weaken the paradigm I support intellectually.

I remain caught in the world marked by ambiguity, paradox, and dilemma. Those whose own work is shaped in a systems-rationalist perspective are likely to fault my discussion of choices and challenges because I have not attempted to provide prescriptive advice or develop a set of rules that one might follow in perfecting precise, logical solutions to specific problems. Although s-r scholars may expect this move from the world of *is* to *ought*, Greenfield (1993e) reminds us that theory only "tell[s] us the way things are rather than how they ought to be or how we should like them to be" (p. 8). He goes on to stress that "administration is a moral art ... a matter of will and power: of bending others to one's will and being bent in turn by others" (1993a, p. 166). For me research is similarly value-based, and researchers bear moral responsibility for their work. As researchers we have the potential to affect our own world and the world of others in both small and far-reaching ways. Just as educators have been encouraged to reflect on their personal practice, we who study education and educational administration ought to remain self-reflective. "The purpose of social science is to understand social reality as different people see it and to demonstrate how their views shape the action they take within that reality"

(Greenfield, 1993c, p. 10). Research remains a social endeavor that could be enhanced by further inquiry into the process of inquiry itself. As researchers we are responsible for more than our intentions. Ultimately we are responsible for the choices we make and for the consequences of our actions.

Notes

1. Burrell and Morgan's (1982) two-dimensional framework identifies four sociological paradigms. This discussion highlights different views regarding the nature of social science (their horizontal dimension), rather than different views about the nature of society (their vertical dimension).
2. I illustrate these challenges as they affect the work of both experienced researchers and graduate students throughout the research process.

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Addressing Instructional Technology Needs in Faculties of Education

Faculties of education throughout the country are experiencing increased pressure to produce graduates who are both confident and competent in using technology in their classrooms. Before changes can be made, however, a clearer picture of where we currently are is needed.

Partout au Canada, on exerce de plus en plus de pression sur les facultés d'éducation pour qu'elles forment des diplômés qui sont à la fois confiants et compétents quant à leur utilisation de la technologie dans la classe de classe. Il nous faut, par contre, une image plus claire d'où nous en sommes présentement avant de pouvoir effectuer des changements.

Introduction

The integration of computer technology into the curriculum has recently become a key component of many school boards' instructional technology plans across Canada. In the fall of 1996 we conducted a survey of these technology plans in the province of Alberta and found the following to be a basic list of computer skills required by teachers: keyboarding, word-processing, spreadsheets, databases, desktop publishing, ethics in technology, multimedia, network communication including Internet and e-mail, and knowledge of classroom management or administration software. In conversations with district-level school board personnel it was made clear that a sound knowledge of and skill with a variety of computer functions, as well as an understanding of how to integrate that technology into teaching to support and enhance children's learning were essential for new teachers being hired. Some school boards may even require demonstration of basic technology competences before granting a permanent contract. Thus a low level of technology literacy could seriously limit a beginning teacher's employment opportunities.

Provincial and federal government initiatives support and encourage this emphasis on computer technology in schools. Alberta Education's (1997) document *Learner Outcomes in Information and Communication Technology* and the policy position paper *An Integrated Framework to Enhance the Quality of Teaching*

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in Alberta (Alberta Education, 1996) exemplify these initiatives. The former document identifies technology learner outcomes for early childhood school to grade 12. The latter identifies key competences for teachers and provides direction in the development and delivery of a preservice teacher education program. In one section it specifies that teachers with an interim certificate must understand

> the functions of traditional and electronic teaching/learning technologies. They must know how to use, and how to engage students in using these technologies to present and deliver content, communicate effectively with others, find and secure information, research, word-process, manage information, and keep records. (p. 25)

The focus from Alberta Education is the effective integration of computer technology throughout the curriculum. Of course, the use of technology in the classroom may be envisaged in many different ways. What follows is our vision of technology integration.

Taylor (1980) described three roles for the computer in the classroom. In the tutor role the computer is used to deliver computer-assisted instruction to the student. In the tutee role the student uses the computer to program. In the third role, as a tool (such as word-processor, spreadsheet, database, Internet, etc.), the student uses computer technology to achieve a task. Researchers suggest that the computer as a tool is the most effective use of our resources in schools because it has the potential to promote cognitive development (Jonassen, 1996; Logan, 1995). A recent review of the literature indicates that "New technologies have the power to stimulate the development of intellectual skills such as reasoning and problem solving ability, learning how to learn, and creativity" (Gregoire, Bracewell, & Laferriere, 1996). So here effective integration of technology refers to the use of computers as tools for critical and creative thinking.

We acknowledge the considerable debate in the education field about the merits and benefits of computer technology; however, such discussion is beyond the scope or intent of this article. In Alberta Education's School Technology Advisory Council, which includes school district and university representatives as members, is clearly establishing the direction for a stronger integration of technology across the curriculum. Faculties of education must now respond to that directive.

For teachers to be effective users of the technology they need to develop certain basic skills. Traditionally these basic skills have been part of preservice education programs; however, Raiford and Braulick (1995) point out a widespread problem. Although basic skills are important, our preservice programs need to go beyond teaching basic skills. Beginning teachers are supposed to be able to integrate technology into their classrooms, but universities and teacher education programs do not offer enough instruction to foster in preservice teachers the skills needed for effective integration. Consequently, faculties of education throughout the country are experiencing increased pressure from government and school district level initiatives to produce graduates who are both confident and competent in using technology in their classrooms.

Our Faculty of Education has been teaching a basic computer skills course for at least 15 years. This course was introduced on the assumption that

students were entering the Faculty with minimal or no knowledge of computers. Today we have a much different situation. Some students have acquired many skills, whereas others seem to have superficial skills or none at all. Before making changes that would focus on the integration of technology, we needed to know the extent of computer knowledge in our Faculty.

Statement of Purpose

There were three objectives for our needs assessment. One was to determine what instructional technology skills would be required by Faculty of Education students and staff at the University of Alberta as recommended in the Alberta Education and school district technology plans. The second was to identify current levels of instructional technology skills held by our undergraduate students. The final objective was to identify barriers faculty face when trying to model the use of instructional technology.

Research Plan and Methods

The first step in this project required collecting technology plans from Alberta Education and Alberta school districts. In December 1996 letters requesting copies of technology plans were sent out to 30 school districts across the province. Plans were obtained from 13 school districts. Alberta Education's (1997) *Learner Outcomes in Information and Communication Technology* and the technology plans of various school boards were reviewed in order to identify a list of required technology skills. Two questionnaires were developed, one for preservice students and the other for university faculty. Items were developed for a student questionnaire that would provide information about the level of familiarity Faculty of Education students had in the areas identified by the district plans. Some district plans even recommended specific software, hence the questionnaire queried students about their familiarity with software identified in the district technology plans. The questionnaire also asked students about regular access to a computer off-campus and about the hardware configuration of that computer. Such information is important when making decisions about the future direction of technology purchases in the Faculty. Some items regarding computer access and hardware configuration came from a similar questionnaire distributed by the Faculty of Business at the University of Alberta.

Several faculty members and graduate students reviewed the questionnaire, and appropriate revisions in wording were made. The questionnaire was distributed to 1,200 undergraduate students in the Faculty between February 1997 and April 1997. In addition, 16 students were interviewed to gain further insight into their history of computer use, their current computer knowledge and skill levels, their computer experiences in the Faculty of Education, and their feelings of preparedness to use computers in their future teaching. All full-time instructional staff received the faculty questionnaire.

Findings

Student Questionnaire Responses

Faculty of Education undergraduate students voluntarily completed the questionnaires during class time. As a result 32% of the undergraduates completed questionnaires (see Table 1). Most of the respondents were female (women =

Table 1

	Number in Faculty	*Number Distributed*	*Number Returned*	*Percentage Represented*
Elementary	1,678	unknown	525	31
Secondary	1,299	unknown	426	33
Total	2,977	1,200	963*	32

*Some of the respondents did not complete questionnaire items used to determine program, age, and gender.

68%, men = 32%). Most were between 20 and 25 years of age and were in the third or fourth year of their undergraduate program.

Students were asked if they had regular access to an off-campus computer for personal use. Most (81%) responded Yes to this item. Of the 19% that did not have access to a computer, 36% were planning to purchase one within the next year. Looking specifically at gender, type of program, and age, there did not appear to be any group that was more disadvantaged in terms of obtaining regular access to a computer off campus (see Table 2). Although other studies have identified differences in gender access to computers, this survey of our students indicated otherwise (Spenneman, 1996).

Most of the students had access to IBM PC-type computers (76%). Students seemed to be most familiar with the Windows operating system and many were familiar with both Windows and the Macintosh operating system. Modems suitable for Internet connections were available to 70% of the students who had access to a computer off campus. Most of the respondents accessed e-mail (71%), and for the most part they used either PINE (65%) or Eudora

Table 2

Group	*Percentage of Students with Regular Access to a Computer Off-Campus*
Gender	
Male	83
Female	80
Program	
Elementary	78
Secondary	83
Age	
19 or less	82
20-25	81
26-30	74
31-35	91
36-40	83
over 40	77

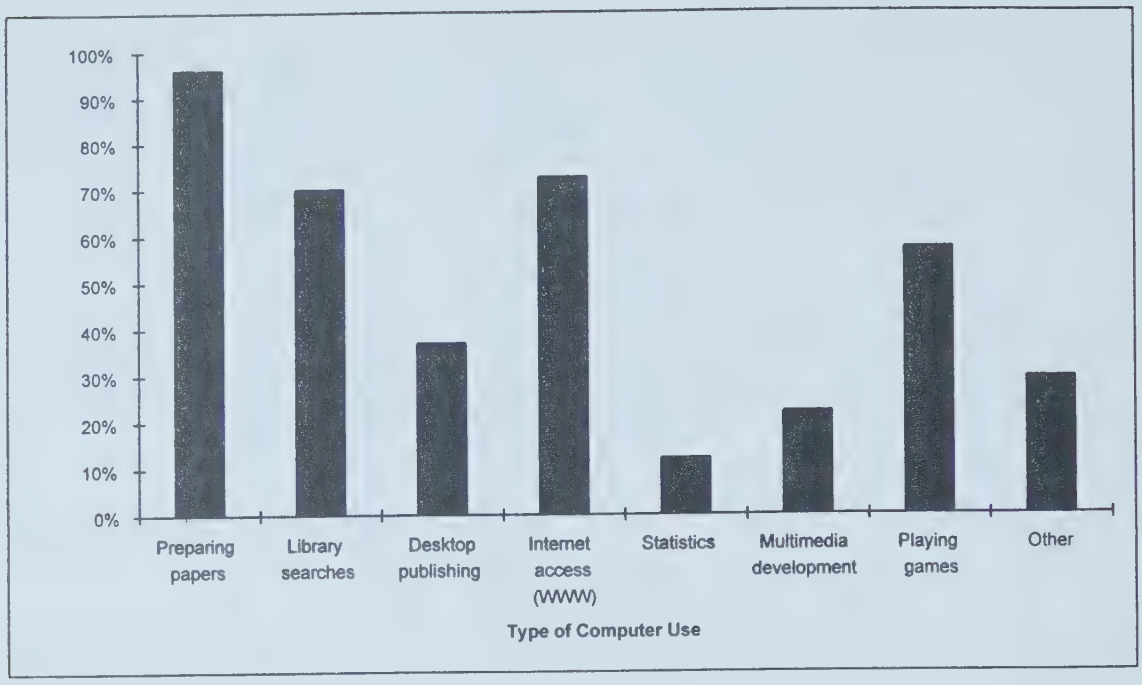


Figure 1. Percentage of students using computers for various tasks.

(33%). Of the 182 students who did not have access to a computer off campus 39% did not use e-mail. On the other hand, of the 777 students with access to a computer off campus, 26% did not use e-mail.

Most of the students had used computers for several years (see Table 3). Almost half (46%) of the students spent one to five hours per week on a computer (see Table 4). Most used computers to prepare papers, library searches, and to access the Internet (see Figure 1).

Students were asked to indicate on a three-point scale (not familiar, basic knowledge, very familiar) how familiar they were with certain types of applications. Although these students reported several years experience using a computer, their familiarity with various applications seemed to be restricted primarily to word-processing (see Figure 2).

Students were asked to indicate on a three-point scale (not familiar, basic knowledge, very familiar) how familiar they were with a specific application (Figure 3). The software identified was selected because it was specifically identified in many of the school district plans. It would only make sense that the applications demonstrated in preservice teacher education programs should be similar to those used by schools.

Table 3

Years Using a Computer	*Percentage of Students*
Fewer than 1	4
1-2	12
3-5	36
6-10	31
More than 10	15

Table 4

Average Number of Hours/Week	*Percentage of Students*
Fewer than 1	15
1-5	46
6-10	22
11-15	7
16-20	4
More than 20	3.5

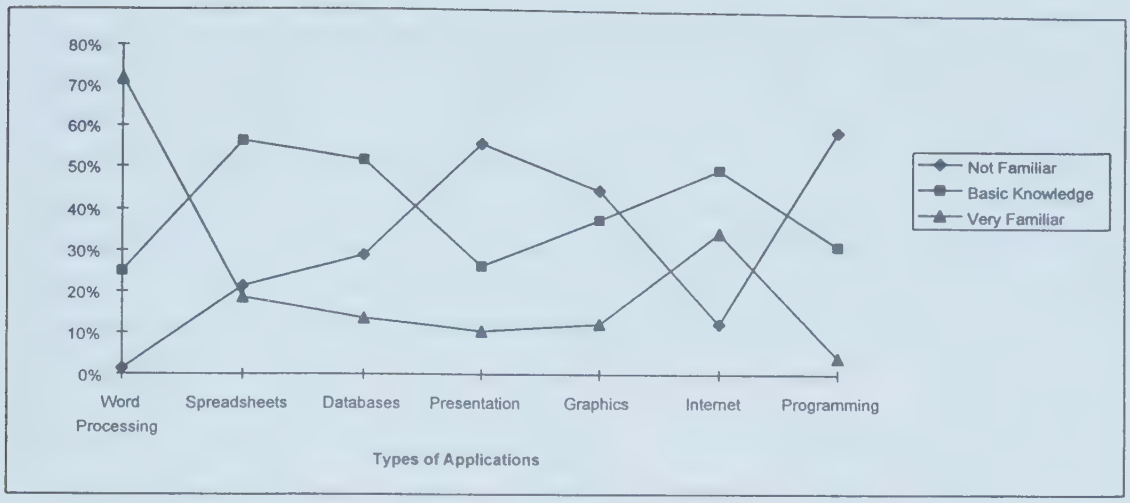


Figure 2. Student familiarity with various applications.

The students surveyed acquired their computers skills in junior/senior high school (39%), university/college (66%), off-campus courses (8%). Most students (80%) believed they were self-taught as well.

Student Interviews

Of the 16 undergraduate students interviewed about their responses to the questionnaire, most began using computers in the mid- to late 1980s. Initially they used computers mostly as word-processors, but in the last few years e-mail, Internet access, and CD-ROM software were being used more frequently. A few students had set up their own home pages on the Internet as well. It appeared that most of the younger participants (age 19 to mid-20s) were more comfortable using recent technological developments such as those mentioned above than were the older students.

As education students the interviewees noted that they used computer technology in the following ways: most did Internet research and used ERIC and CD-ROM databases; most used computers for word-processing papers; a few e-mailed assignments to professors; and several had used PowerPoint in class presentations. During practicum most of the interviewees did not integrate computers into the curriculum as instructional tools, but rather used

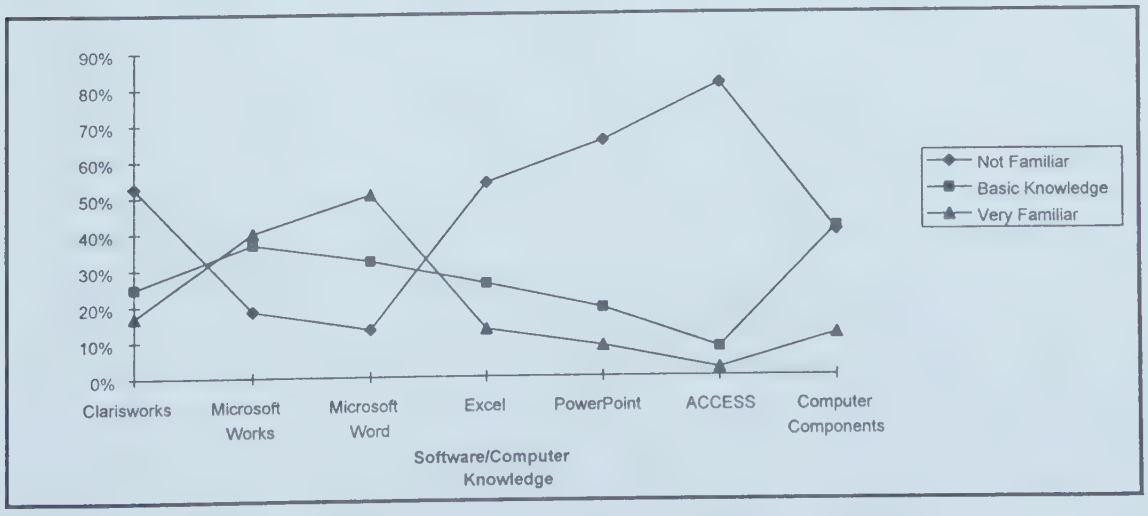


Figure 3. Student familiarity with computer components and specific software.

computers for their own purposes. Some used word-processors to print school lesson plans and handouts, some used computers to prepare a PowerPoint presentation and for recording attendance and marks, and a few did Web searches to prepare lessons. Few used available software for teaching purposes in the classroom.

The students interviewed noted that some of their reasons for not using the technology more often with their classes during field experiences were: the school's failure to have malfunctioning computers repaired; their cooperating teachers' lack of knowledge about what to do with computers; computers in a lab setting rather than in the classroom, a situation which was found not to be conducive to whole-class instruction and individualized learning; and concern over the absence of censorship on the Internet. One person also commented on the lack of up-to-date educational CD-ROM programs available for them to borrow from the campus library collection as being a deterrent.

To enhance their preparation in using computer technology for their future teaching, the students interviewed suggested that the Faculty of Education should:

- assist preservice teachers in learning to use the Internet not only to prepare lessons, but also to teach children how to make use of it as a learning tool;
- expose preservice teachers to various software programs which they could use to help facilitate children's learning in curriculum areas;
- increase preservice teachers' knowledge of databases and e-mail integration in curriculum areas;
- teach preservice teachers how to integrate computers into all curricula, not just one or two lessons;
- put more emphasis in course work on computer applications in the classroom;
- encourage professors to model computer use in their education courses, for example, by allowing students to use e-mail or the Internet to contact them or to send assignments electronically.

Faculty Questionnaires

Faculty members were surveyed about the following: how they currently integrated technology into their undergraduate and graduate course; what new ways they would like to be able to include technology in their teaching; what currently facilitated and hampered their integration of technology into their courses; and what they would like to see the faculty do to assist them in their efforts.

Surveys were distributed to 120 faculty members and 27 responded. These respondents most commonly used computer technology for preparing lessons, including PowerPoint presentations and making overheads for lectures; as a management tool such as using spreadsheets for recording grades; and for banking test items. Computers were also being used in some classes as learning tools with students, for example: to explore CD-ROMs and web sites; for e-mail discussion groups; to do math using spreadsheets; to access the Internet as an assignment looking for course-relevant information; for collecting assignments, including collecting papers on disk that were merged for collective class sharing; and to increase avenues for student-instructor communication

through e-mail, conference calling, and by setting up a listserver to contact each other during class and while out on field experiences. Although some faculty members discussed and demonstrated how technology could be integrated into the curriculum, it was most often used as a personal productivity tool.

The faculty surveyed concurred that they would like to incorporate technology in their teaching in several ways. They would like to use technology to increase communication with other faculty and with students through e-mail, listservers, and web pages. They also wished to be able to help students use the Internet to find resources. Some faculty members wished to make more use of LCD panels or other projection devices.

Four factors were seen to be the greatest deterrents to increased faculty use of technology. One of the most often voiced concerns was the lack of money. More money was needed to purchase software, to replace outdated hardware, and to upgrade computer facilities in the Faculty. Money was also mentioned as necessary to hire support people to help both faculty as they attempted to increase their computer skills and students as they worked in computer labs.

A second concern noted often by the respondents was time. Time was needed to learn to use the technology and upgrade knowledge and skills, to develop materials, to keep abreast of the latest software, and for class set-up. Respondents wished to learn more and do more with technology but feared it would take time away from research.

A third common area of concern for faculty included issues of training and support. There were mixed reactions to the form of training that was viewed as being most effective. However, all the respondents agreed that being given the opportunity to learn to use the technology competently was essential before trying to integrate computers into their teaching. Workshops were not always the most convenient way of upgrading knowledge and skills. The consensus seemed to be a preference for more one-on-one assistance as the individual required it. Although faculty members appreciated the current level of support given by the technical experts, it was viewed as being too little. Faculty wished to work with technology experts who would provide a mentorship role. Not only would these technology assistants be useful for initial training, they would also address the issue of support for the instructors' ongoing upgrading of their computer knowledge and skills.

One final area of concern articulated by the respondents was convenience. Frustration was voiced about the inaccessibility of computer labs, portable equipment, and software for working with classes. The amount of effort required to bring technology into the classroom was seen as onerous. Also, the equipment was not always reliable because settings or software were modified from one user to another.

The deterrents identified above were voiced across campus. The Learning Support Systems' (1997) survey of the entire university academic staff indicated that the top three deterrents to using instructional technology were funding, time to learn new technologies, and classroom infrastructure. The survey showed that the most preferred method of training for faculty was short workshops to learn basic skills. Technical and infrastructure support was preferred at the faculty or department level. Other sources identify similar

barriers to integrating technology (Carr, Novak, & Berger, 1992; Wetzel, 1993; Willis, Willis, Austin, & Colon, 1995).

Discussion and Recommendations

Our survey of the faculty was based on the assumption that computer technology will play a significant role in education. Logan (1995) describes computer technology as "not just a new technology or a new medium of communication; rather, it is a radical new way to process and organize information and as such it represents a new form of language" (p. 6). We believe that computer technology literacy is important for all citizens and that our preservice teachers need to be prepared to help their own students develop this literacy. As well, we believe that computer technology is a tool that will help students learn the knowledge, skills, and attitudes described in subject area curricula. Our preservice teachers need to be exposed to the technology and the techniques that lead to cognitive development. It is these beliefs that should guide our development of technology integration into a preservice program and not just the demand for teachers with strong computer skills.

The survey provided us with additional information needed to develop a technology plan by giving us a picture of our students' computer abilities and their access to the technology. A major concern raised by the results of this survey is the level of familiarity the Faculty of Education students have with basic applications identified by the school districts and Alberta Education. Although students seem to have more skills than students entering the faculty 15 years ago and are spending a substantial amount of time using computers, the use is restricted mostly to personal productivity such as word-processing and library searches. However, Gregoire et al. (1996) report, "the benefit to students of using new technologies is greatly dependent, at least for the moment, on the technological skill of the teacher and the teacher's attitude to the presence of technology in teaching." These researchers also found that positive effects on learning were more noticeable if the teacher and his or her students were competent users of the technology. Because the technology outcomes for Alberta describe the use of tools such as the word-processor, spreadsheet, database, e-mail, Internet, graphics, and multimedia, we should expect preservice teachers to have high levels of competence in the use of these applications. The real challenge here is to help preservice teachers become more comfortable with these applications and to use them in student-centered teaching strategies.

As mentioned above, our Faculty already has a basic skills course, but more effort will be required to help preservice teachers learn to integrate the technology effectively in their classroom (Flake & Molina, 1995). One course in an undergraduate program will not raise preservice teachers' competences to the level needed, nor can it address how the technology can be implemented across the curriculum. Several courses seem to be required, yet it is difficult to find more room in the teacher education program for courses that specifically focus on integration. Instead, we may have to rely on developing assignments in many of our courses that require preservice teachers to use the technology to do the very things they will require from their students, that is, problem-solving, decision-making and inquiry (Wiburg, 1991). Courses in curriculum and instruction should have assignments that require preservice teachers to develop

curriculum activities involving the use of a computer. The introductory computer course that all preservice teachers take should probably require prerequisite or corequisite skills that must be completed outside of the teacher education program so that more sophisticated skills can be developed. Teacher education students could be provided with a list of resources that would help them acquire basic technology skills. Many of these resources are self-paced modules of instruction that exist online or in hard-copy format.

The survey results suggest other possible directions for enhancing technology integration in the Faculty of Education at the University of Alberta. Ensuring easy access to the technology is one of the first steps to improving technological skills for both students and faculty (Thompson, Schmidt, & Hadjiyiamni, 1995). Providing regular access to a computer is one way of increasing students' computer expertise. The problem, however, is the cost involved with providing that access. Ideally each student would own a computer, but with the increasing cost of higher education such a requirement would be considered by many as making education inaccessible to lower-income individuals. Some universities do require ownership of a computer, but such a requirement has been questioned by both students and faculty. After reconsidering its value to students, some universities have removed their mandatory computer ownership requirement (DeLoughry, 1995). Their experience was that faculty members were not ready for technology integration, and costs to the universities were not reduced because money still had to be invested in campus facilities and in providing more support services. Sonoma State University, on the other hand, took a different approach, requiring that all first-year students have 24-hour access to a computer (DeLoughry, 1995). Low-income students can borrow computers at no cost and others can buy or rent a computer.

Requiring students own a computer raises questions about equity, but ignoring the computer accessibility issue also raises concerns about equity. Students who cannot afford a computer will probably not acquire the same skills as students who own a computer, and they can be at a disadvantage when seeking teaching positions. Our faculty will have to consider how it will ensure all preservice teachers have equal access to computer technology.

Although this initial discussion has focused on the needs of preservice teachers, it seems obvious that the first step toward technology integration is to address the barriers our faculty claim prevent them from implementing technology into their classes. Faculty members cannot help preservice teachers until they have helped themselves. A commitment to increase funding in the technology area will help to alleviate many of the concerns. Some academic staff still need a computer in their office; others need upgrading. Easy access to current, appropriate software is also essential. As well, equipment to display material from a computer should be readily available. This is an obvious solution and will become viable only if government funding is specifically allocated to support the infrastructure needed to integrate technology.

Increased funding, however, will not help professors find more time. They will need time to attend workshops, develop new assignments, and restructure courses. We will need incentives to convince staff members that they need to take on one more commitment. Incentive programs such as offering a faculty

member a new computer if he or she attends a summer technology institute could be used to encourage this commitment.

Providing instruction and support on a need-to-know basis would benefit faculty and students, but this requires having a large pool of knowledgeable individuals on call. One suggestion might be to have knowledgeable students work at a help desk to answer questions and troubleshoot hardware and software problems. This role would benefit these students because they would build technical expertise as they find solutions for the problems raised. However, this would help address only the technical problems. We also need to identify individuals (faculty members, graduate students, or inservice teachers) who would help faculty develop and organize projects that integrate technology into their curriculum and keep the faculty informed about useful new technologies and software.

Conclusion

This report identifies the possibilities and problems currently being experienced by our education students and faculty in terms of acquiring technological skills. Some solutions are offered to help both groups meet the expectations set forth by Alberta Education. Although this needs assessment did not come up with anything surprising, it has given us the information we need to restructure our program, to reallocate our resources better, and to direct our course development initiatives.

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Research Notes: Guidelines

The *Note* should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the *Note* could be either a specific study or inquiry or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a *Note* is 1,000 words (about 4 double-spaced pages in standard 12-point type), excluding references and one or two tables or graphs. To encourage communication between researchers, authors of *Research Notes* are asked to provide contact information such as e-mail, fax, and/or telephone numbers for publication with each *Note.* No abstract is required, but in all other respects the usual **ajer** guidelines for manuscripts should be observed.

Submissions to *Research Notes* will be reviewed for readability, clarity, organization, length, and adherence to all *Alberta Journal of Educational Research* (**ajer**) guidelines. Any submission that is judged to meet these criteria will be published as soon as possible to minimize the usual delays in moving submissions to publication. Any submission that is judged to require revisions according to the criteria outlined will not be published, as the *Notes* must have some currency if they are to serve the purposes identified.

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Creating "Spaces of Inquiry": Participation in Elementary School Science

A year-long study was conducted in a grade 6/7 elementary class in order to explore and document the nature of children's participation in elementary school science. Teacher and researcher collaborated to plan and teach science with a focus on creating opportunities for children to participate. Children embarked on three extensive science projects with their teacher working in teams of four or five and learning as a community of inquiry. Audiotaped records of children's and teacher's comments, children's creations, and extensive field notes provide a foundation for constructing an interpretive narrative of that one year of school science.

Science in school often emphasizes what is known, or the facts (Bentley & Watts, 1992; Newton, 1988; Wassermann & Ivany, 1996). That is, science curriculum guides generally emphasize expected learning outcomes, rather than emphasizing participation and inquiry in the spirit of science. Wassermann and Ivany (1996) argue that "to know science is not merely to learn the words, the names of science" (p. 5). Their idea of "sciencing" promotes participation and describes a generative process and approach to elementary science education. If elementary science education focuses on sciencing, then inquiry, exploration, and adventure will feature more prominently.

At the same time, participation is identified as an important aspect of school science. "The provincial science curriculum (BC Ministry of Education, 1995) promotes an activity-based program where students learn scientific knowledge in a hands-on and 'minds-on'" way (p. 2). However, no guidelines or suggestions are provided for teachers about the nature of an activity-based program or the meaning of *hands-on* and *minds-on science.* Consequently, participation in school science is interpreted and enacted in diverse ways. How, then, do teachers create contexts for students to participate in school science?

This research project identifies three distinct "spaces of inquiry" in and across extended science projects. These spaces provide diverse opportunities for children to participate and provide a model for teachers about how to create contexts for participation in school science. Spaces of inquiry are not fixed by location, but rather are characterized by social interactions and purpose of inquiry. There is inquiry at the group level, inquiry at the class level, and inquiry at a larger community level. Overall, opportunities to participate in different spaces of inquiry contribute to diverse learning opportunities for students. What were these three spaces, and do we need multiple spaces in education?

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First, generative spaces provide small groups of students with opportunities to learn collaboratively. It is a creative, dynamic, open-ended space of possibilities. Students express tentative ideas, listen to each other, discuss problems, negotiate, and make decisions in this space. This space reverberates with various students' ideas as they work together brainstorming and recording their ideas. The expectation from the teacher's perspective are that students are responsible for organizing their time and coming to consensus in this space. Moreover, students need to be prepared to communicate their ideas to other teams as well as listen to other teams and engage in conversations about proposed ideas. Students spend most of their project time working in a generative space, so it is essential for them to learn to collaborate as a team. These collaborative efforts require students to develop specific social skills to succeed (Linn & Burbules, 1993). Students made the following comments: "it's hard to cooperate in a group" and "sometimes you have to make a compromise in a group" and "I really enjoyed working in a group because you learn things from each other and solve problems together." It is a space of responsibility and an opportunity to take ownership for their learning.

Second, rehearsal spaces provide each small group of students with several opportunities to present their ideas to the class as they attempt to push the boundaries of what they know and in the process expand each others' ideas. In this space, listening, reflecting, reframing, inquiring, and responding are critical. Interactions are predominantly from student to student as they seek to describe and clarify their ideas. From a teacher's perspective the expectation of this space is for students to present their ideas in the format of their choosing to the larger class community and to allow others to make comments and contributions. This space also allows the teacher the opportunity to check on the progress of groups and to listen to the issues that the whole community of students raise. It is an open space of collective inquiry. One girl describes it this way: "we can share ideas and some people have really good ideas." And another girl observes, "I learned how to be more confident about presenting something." Overall, this space encourages students to rehearse their ideas in a supportive collaborative environment.

Third, performative spaces provide opportunities for students to interact with an audience. It is simultaneously a performative and transformative space. This is a unique opportunity for students to transform their roles and registers as they present their finished creations to their community. In this performative space students co-create with their audience and reperform what they know, or have learned, each time they interact. Put another way, each time students interact with an audience member they have a new opportunity to respond and express their ideas. Students made the following comments: "I enjoyed presenting to others" and "I learned how to present and explain the process of our engine so that others would understand it." For many students this performative space made the projects real and worthwhile.

Initial data analysis reveals the importance of contexts for participation in elementary school science. In particular, the researcher identifies spaces of inquiry that afforded students diverse opportunities to participate with science content in a community of inquiry. These spaces of inquiry seem important

because they provide an alternative way to think about learning and teaching science, they provide opportunities for designing collaborative group work, and they challenge educators to consider children's contributions to their science learning. Further investigation is required to explore the potential of multiple learning spaces across the elementary curriculum.

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Educators' Use of Metaphors to Deal with Anger in the Schools

Anger, which can lead to violence, has become an increasingly serious problem in today's schools. As children and youth carry more stress, anger, and conflict into the classrooms and onto the playing fields, educators experience increasing levels of stress, tension, helplessness, and frustration. One approach to deal with the increase in student anger and aggression that has been adopted by many school districts is offering students programs in anger management. However, most anger management strategies are largely cognitive, even though intense anger reactions often occur before we have time to consider consequences. As well, this approach places the onus almost entirely on the students to make changes in their behaviors.

Although I agree that teaching children how to control, rather than be controlled by, their emotions is an extremely important aspect of their growth and development, I believe that this is the second step in the process of supporting behavior change. First we must look to ourselves to make whatever changes possible to affect the situation. In keeping with this belief, I created a small, descriptive study as a preliminary approach to determining if a new approach to managing anger in the schools using the exploration of educators' metaphorical images of anger might be successful.

Connelly and Clandinin (1988) argued that metaphorical images illuminate the connection between teachers' past experiences and their present action. Metaphors can provide clues about how teachers construct their worlds (Bullough & Stokes, 1994; Collins-Eaglin, 1994; Munby & Russell, 1990) and allow teachers to see how their students' behaviors are congruent with the world they as teachers have constructed. Consequently, metaphor enables teachers to move beyond their current understanding by providing a view of the situation that highlights aspects previously less salient. As new dimensions of a situation become evident, new understandings and approaches for resolution arise (Munby, 1986; Schön, 1979; Stanton, 1992).

This study sought to explore the significance of metaphor in teachers' experience of students' anger and anger management. Through the use of a critical incident, eight female elementary schoolteachers and counselors discovered and examined metaphorical images that embodied the thoughts, feelings, attitudes, and behaviors associated with their experiences with angry students. Three personal interviews with each participant examined whether the metaphorical images were: congruent with the educators' desired approach to classroom management; effective in dealing with angry students; difficult to implement at times of intense emotion; and effective in altering the feelings, attitudes, or behaviors of participants and their students.

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Research Findings

One grade 7 teacher imagined her adolescents as marionettes. Their strings were constantly being pulled by parents, teachers, peers, society, and hormones, causing them to be awkward, confused, and often on edge. By uncovering this metaphorical image, the teacher now viewed her students' anger as a part of their normal development and, therefore, did not need to take it personally. She described her new experience of her students' expression of anger as more accepting and found they soon began to "back off faster." Other metaphors of angry students uncovered by the research participants included a pool ball, leaf, brush fire, windmill, and the Tasmanian Devil.

In general, the experience described by the participants in this research suggests that metaphors:

1. provide an avenue for self-reflection; educators become aware of the incongruities that exist between their stated beliefs and their actions. They identify their own roles in the dynamics that exist between themselves and students;
2. provide a means for emotionally detaching from their students' anger, allowing for other choices to be made and a reduction in teacher stress;
3. are more accessible than other strategies at times when the body is flooded by emotion and complex cognitive operations are not possible (Goleman, 1995);
4. have moderating effects on the inappropriate and aggressive behaviors of students by providing a change in educators' conceptions of anger and their attitudes and actions toward angry outbursts;
5. are automatically personalized to fit the uniqueness of the individual. Each person's metaphor is different in some way and may be used in the manner that is most congruous with his or her personality and needs.

Limitations and Future Research

A small descriptive study of eight participants, all women, from only two schools does not allow the results to be widely generalized to other situations. The sample size should be significantly increased as well as including a greater variety of participants. Questionnaires or a more structured interview might be used to focus the research on the issue of effectiveness of the process for managing anger. Rather than relying solely on educators' experiences of their own and their students' behaviors, observations might be incorporated to add an objective view of behaviors before and after engaging in the process of metaphorical exploration. A rating scale might also be administered to both educators and students. Perceptions of calm versus tension in the classroom could be measured in this way.

It would also be important to study the effectiveness of the process when introduced to a group of educators rather than working with one individual at a time. Obviously the latter approach would be extremely inefficient and largely impractical. Groups of various sizes and concentrations (of teachers and/or counselors and/or administrators) may be tried to decide what conditions are optimum. It might also prove useful to have a series of follow-up interviews to determine the lasting benefits of using metaphors as a means of anger management.

Just as some researchers have recently questioned the specific reasons for the success of cognitive-behavioral strategies (Cormier & Cormier, 1991), one needs to question the reason for success of this process. Was it metaphors per se that led to the changes in attitudes and behaviors of the participants and their students? Might it simply have been the willingness on the part of these educators to be self-reflective: to evaluate their own behaviors and beliefs? Would the same results have occurred through a simple discussion of circumstances and an exploration of alternative approaches to dealing with the students?

Although there are limitations to this exploratory study, the findings provide an exciting possibility for a whole new approach to the critical issue of anger management in the schools.

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The Alberta Journal of Educational Research *Vol. XLIV, No. 3, Fall 1998, 339-341*

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Effects of Peer Mediation Training in Junior High School on Mediators' Conflict Resolution Attitudes and Abilities in High School

Earlier research has shown that student peer mediation can be an effective form of dispute resolution (Johnson et al., 1996) and that such training can enhance mediators' own attitudes, beliefs, and experiences related to conflict (Johnson, Johnson, Dudley, & Magnuson, 1995). The present study used an existing groups design to determine whether the experience of peer mediation training in junior high confers benefits on conflict resolution attitudes and behaviors that endure into high school. It was hypothesized that students who had previously been trained as peer mediators, relative to those never trained in peer mediation, would be more likely to endorse a variety of positive attitudes and beliefs about conflict resolution and to be more satisfied with their own abilities to resolve conflict with peers and teachers.

Method

A survey of students' perceptions, experiences, and beliefs about conflict was administered to 319 high school students (205 male, 106 female, 8 gender unreported) in grades 10 to 12 attending an urban high school in Winnipeg, Manitoba. Fifty-one of the respondents indicated that they had been previously trained as a peer mediator in junior high school. This group of former peer mediators included more girls than boys, $\chi^2(1, N=296) = 7.11, p<.01$.

Results and Discussion

To our surprise we found that peer mediators did not significantly differ from non-peer mediators in several areas where differences were expected. Relative to peer mediators, non-peer mediators reported a similar level of satisfaction in their own ability to resolve conflict with other students and teachers. The two groups also reported similar levels of belief concerning (a) the value of communication in solving conflict, (b) optimism that conflicts can have positive outcomes, (c) the value of avoiding conflict, (d) the degree to which conflict interferes with learning, and (e) dislike of conflict situations. Finally, the two

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groups were also similar in their global perceptions of conflict as being (a) intrinsically manageable, (b) necessarily violent, or (c) always best avoided.

A possible explanation for the absence of any enduring differences in conflict-related attitudes and behaviors between those students who have previously received training in peer mediation and those who have not is suggested by an examination of the content of the peer mediation training itself. The peer mediation training the students received in junior high focused primarily on teaching mediation skills (e.g., setting rules, listening, devising an agreement). This training produced highly effective peer mediators, as evidenced by a satisfaction rate of over 90% reported by 155 users of the service. However, this training program did not target mediators' own attitudes and conflict resolution skills directly. This contrasts with the approach to peer mediation training taken by Johnson et al. (1996) in which extensive training in using negotiation to resolve conflict is included and where beneficial effects of mediation training on mediators' own attitudes and conflict resolution skills have been obtained at short-term follow-up. It would appear, therefore, that if the peer mediators in our research did undergo any immediate attitude changes or enhancements of their own conflict resolution skills because of their becoming trained peer mediators, these changes were not sufficiently durable to be evident one or more years later in high school. Accordingly, if educators wish to ensure that positive changes in peer mediators' conflict-relevant attitudes and behaviors persist over time, it is likely that explicit interventions aimed at these attitudinal and behavioral targets will be necessary.

Conflict Resolution Research Program

The present study was undertaken in the context of the authors' ongoing program of research aimed at developing basic and applied knowledge of how adolescents view and manage conflict both in school and the community. A unique aspect of this work is the partnership that has been forged between team members working in the public school domain and at a research-oriented university. This has been a positive collaborative process involving complementary contributions from different individuals. Based on our experience, we believe this kind of arrangement between public school teachers and university faculty can be mutually beneficial.

In our work we have found preliminary evidence to indicate that students' beliefs about conflict are strongly related to how they have seen conflict resolved around them, and to their own ways of resolving conflict (Johnson, Thomas, & Krochak, 1997). At present we are developing a screening tool to identify those whose negative beliefs about conflict and conflict resolution may put them at risk for violent or otherwise destructive or ineffective ways of managing conflict. It is our hope that the availability of a reliable and valid measure of problematic attitudes and beliefs concerning conflict and conflict resolution will facilitate the identification of those who may benefit most from interventions to enhance their conflict resolution skills.

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Influence of Task Difficulty and Background Music on Working Memory Activity: Developmental Considerations

Introduction

Higgins and Turnure (1984) studied the developmental changes in children's focus of attention during aural distraction. They used a visual discrimination task at two levels of difficulty. During each task children's songs were played at varied amplitudes. With music, 12-year-olds showed improved discrimination, 8-year-olds were unaffected, and 5-year-olds showed decreased performance. Neither task difficulty nor gender were related to the results.

Although Higgins and Turnure (1984) constructed tasks where difficulty levels were adjusted to each age group, in practice the tasks assigned to the youngest group were more difficult than those assigned to the older groups for two reasons: (a) the music played was a more meaningful distracter for the youngest group than for the others, and (b) their study was conducted in laboratory conditions with separation between the participants and the tester, a situation more likely to create anxiety in younger children, increasing the difficulty of their tasks.

By maintaining identical task difficulty across all age groups, our study sought to investigate more precisely the hypothesis that there are developmental stages in the ability to allocate energy in working memory in the presence of background music.

Research Design

The 300 participants were 100 kindergaren children (mean age 5.6), 100 grade 2 students (mean age 7.8), and 100 grade 6 students (mean age 11.4). Each age group was divided at random into two experimental conditions: performance with or without background music. Tasks at three levels of difficulty were assigned in each experimental condition.

There were two types of tasks: visual discrimination, which requires the subject to hold previous stimuli and responses in working memory while solving a new problem, and square identification, in which model squares are visible throughout the task. Earlier research determined each age group's musical preferences, which were then were recorded in random order. The children were tested individually in comfortable and familiar conditions.

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Results

Visual discrimination task. A three-way analysis of variance (3 age groups x 3 levels of task difficulty x presence versus absence of background music), where the number of correct responses was the dependent variable, showed two significant main effects: age ($F2,298 = 19.7$; $p<0.0001$) and task difficulty ($F2,298 = 11.35$; $p<0.001$). In general, age improved performance and task difficulty impaired it. Duncan analysis (see Figure 1) showed that background music improved performance at the youngest and middle ages ($p<.05$) and had no effect on the oldest participants ($p>.05$).

Square identification task. A three-way analysis of variance (3 age groups x 2 levels of task difficulty x presence versus absence of background music) where the total number of correct responses was the dependent variable showed two significant main effects: age ($F2,298 = 16.3$; $p<0.0001$) and task difficulty ($F2,298 = 13.80$; $p<0.001$). Older children performed better, and task difficulty impaired performance. The analysis showed one interaction: background music x task difficulty ($F2,298 = 4.17$; $p<0.01$, see Figure 2). Duncan analysis showed that in the easy and difficult tasks background music had no influence ($p>.05$). However, in the medium-difficulty task, background music lowered performance significantly ($p<.001$).

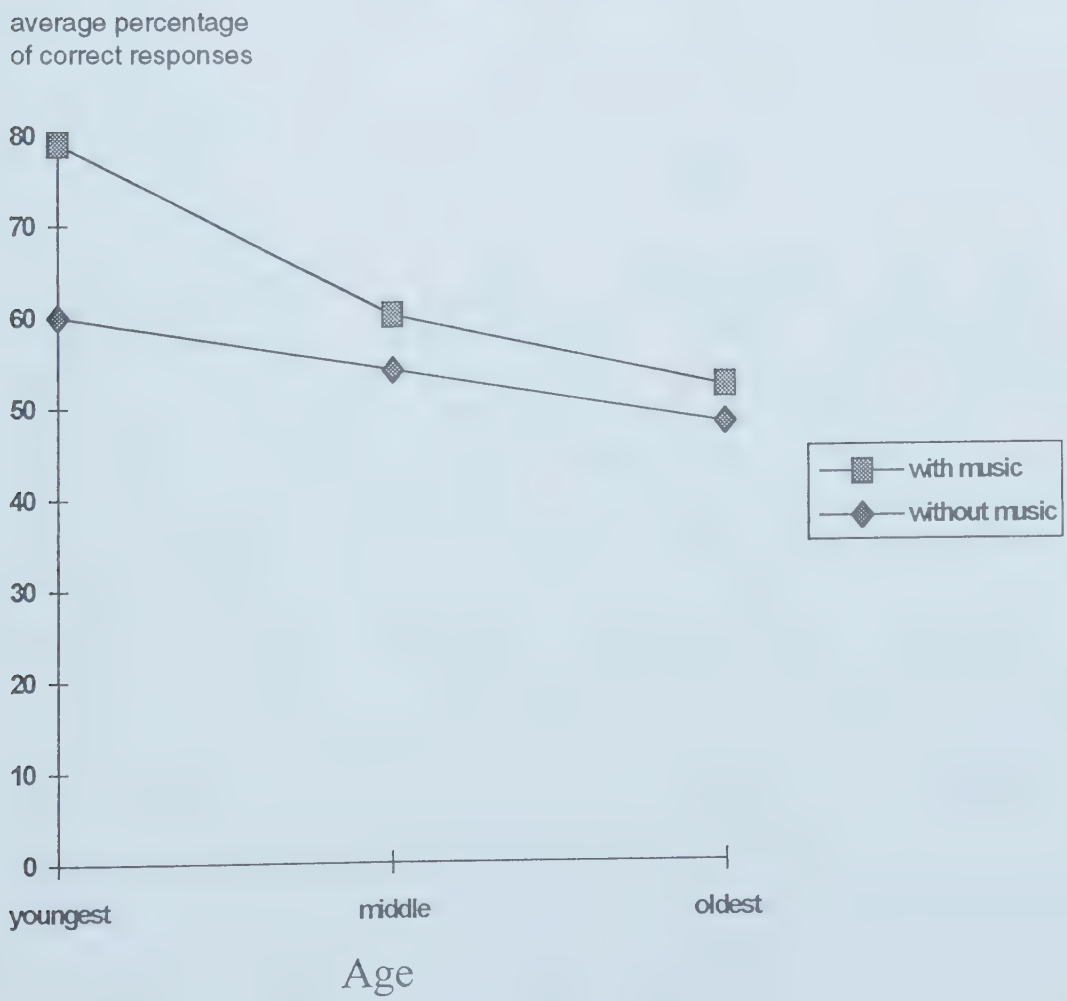


Figure 1.

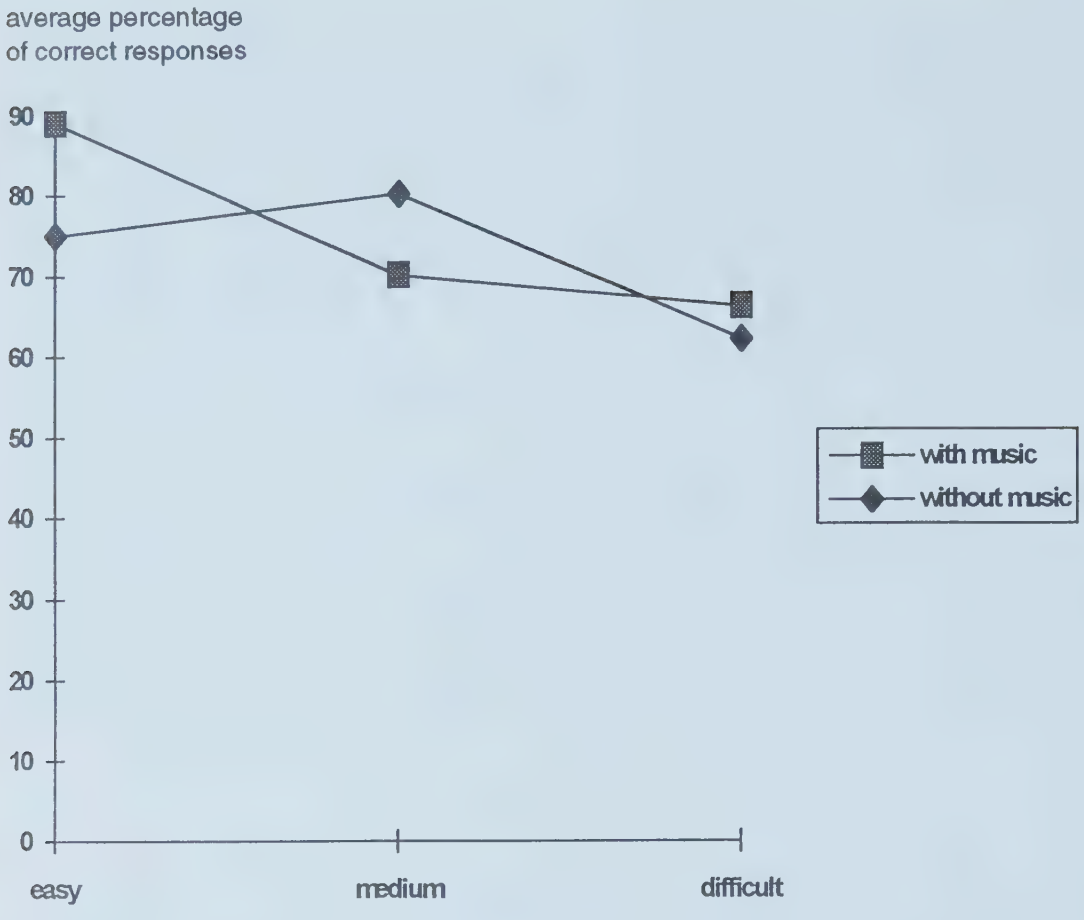


Figure 2.

Discussion

Our findings suggest that in the visual discrimination tasks background music improved performance in the low- and medium-difficulty tasks and did not affect performance in the high-difficulty tasks. In contrast, the results show that in the low- and high-difficulty square identification tasks background music did not influence performance, whereas in the medium-difficulty task background music lowered performance.

The differences between these two tasks can be explained by the greater difficulty of the discrimination task. Throughout the square identification task the model squares are visible. Automatic performance is quickly achieved, lightening the load of working memory and facilitating fast and effective performance (Fisk & Schneider, 1984; Hasher & Zacks, 1979; Schneider & Fisk, 1982; Schneider & Shiffrin, 1976, 1977; Sternberg, 1986; Zacks, Hasher, & Sanft, 1982). In contrast, the visual discrimination task requires the subject to hold previous stimuli and responses in working memory and add information after the presentation of every card. Hypotheses must be formed, remembered, and examined repeatedly. In addition, the subject must apply processes of decision making (Kaniel, 1995; Presseisen, 1987) to the data through error and generalization of stimuli to concepts of shape, color, and orientation. Thus the discrimination task produces a load in working memory and requires continuous investment of energy (Baddeley, 1981; Hasher & Zacks, 1979.)

The relationship between distracters and performance is best appreciated in the context of *meta-attention*, a term referring to the ability to think about attention to awareness ("inner eye") of one's attention processes, and to one's complete and accurate knowledge of these processes and ability to manage (Forrest-Pressley, Mackinnon, & Waller, 1985; Weinart & Kluwe, 1987), monitor, and control them (Nelson, 1994). The conceptual key to understanding meta-attention is *task load*, a term that combines subjective and objective aspects of task difficulty. *Objective difficulty* refers to parameters such as time limits, loud background noise, and factors that make multiplication harder than addition and philosophical essays more difficult reading than fairy tales. *Subjective difficulty* subsumes learners' personal components such as basic needs (hunger, thirst, relief of pain, etc.), perceptions of time pressure, hyper- or hypo-arousal, anxiety resulting from previous failures at a task, degree of task familiarity, degree of automaticity, and others (Kaniel & Arzi, in press). The interaction between objective and subjective difficulty creates the task load experienced by a specific learner at a given moment. When the processing load is high (task is difficult for the learner), it is hard to activate meta-attention

Background music can increase arousal. The greater a task's ease and monotony, the more "loaded" the music should be (e.g., unfamiliar music and/or interesting lyrics). Similarly, if a task is difficult, musical distraction should be reduced. At a certain point, task load becomes so great that *any* background noise is disruptive.

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List all sources alphabetically at the end of the manuscript under the heading *References* using the APA style.
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The Alberta Journal of Educational Research *Vol. XLIV, No. 4, Winter 1998, 347-348*

From the Editor

The *Alberta Journal of Educational Research* (**ajer**) has a lengthy tradition as an eclectic, scholarly journal publishing reports on systematic inquiry into education for a national and international audience. As the new editor of **ajer** I wish to continue the excellent work of my predecessor, Beth Young, in seeking to extend **ajer**'s readership and the range of pertinent scholarly research and enquiry that is reported in this journal.

Continuing in the tradition of previous editors, I encourage the submission of manuscripts on many subjects in an effort to make **ajer**'s coverage of research in education as wide-ranging as possible. Each year the journal will continue to sponsor one issue dedicated to a topical theme in education.

In March 1996 Beth Young introduced **ajer** *Research Notes* as a new section for the journal. This section has provided a means for educational researchers to communicate with one another about their research-in-progress. Because **ajer** is so widely indexed nationally and internationally, it is effective in supporting such exchanges. The *Research Notes* have also been a useful means for reporting on smaller research projects that have one or two findings of particular interest but do not warrant full-article treatment. I encourage more active use of the *Research Notes* option. Guidelines are provided at the beginning of the section.

During the two years ahead I look forward to strengthening the *Book Reviews* section of **ajer**. To this end I am grateful and pleased to welcome Hans Smits as the newly appointed Book Review Editor for **ajer**. After three years at the University of Regina, Hans Smits has moved to the Faculty of Education at the University of Calgary to work in the area of social studies education and to continue his work in the areas of action research and hermeneutics as applied to education. Books submitted for review should continue to be sent to the **ajer** office at the University of Alberta. Once review requests are documented the books are forwarded to Hans Smits.

Another one of our goals is to increase subscriptions to **ajer**. The journal competes for funding support, and its subscription levels are an important factor in such applications. An order form for subscriptions and/or individual issues of particular interest is included in each issue as well as on our website at http://www.education.ualberta.ca/educ/journals/ajer:html.

I am also pleased to anticipate a special issue of **ajer** entitled "Measurement and Evaluation: Current and Future Research Directions for the New Millennium," scheduled for Volume XLV, Number 4, the last issue in 1999. The issue will contain papers presented by leading scholars from across Canada who shared and discussed their research in cognition and assessment, psychometric modeling, test score validity, standard setting, computerized testing, and classroom and large-scale assessments at the Banff Conference held in the fall of 1998. Both recently completed research and research-in-progress were discussed and critiqued with a view to establishing a research agenda for the next century. The guest editor for the issue will be Todd Rogers (University of Alberta).

During my first months as editor of **ajer** I have had the benefit of the prior work and current support of many people. My predecessor Beth Young and **ajer**'s Editorial Assistant Edie Peters developed a number of systems and structures for keeping **ajer**'s work on track. Beth was also generous with her time and in sharing helpful information and advice during our transition period. Edie Peters is an invaluable daily partner in **ajer** work. George Buck, the Associate Editor, has been wonderful to work with in his responsibilities for issues related to computer technology (including our website) and copyright. Joyce Hiller, Administrator for the journal, and Grace Malicky, Associate Dean of Research and Graduate Studies have been a welcome source of support. Consulting editors (named on the masthead) and reviewers (to be listed for all of 1998 in our next issue) have been unfailingly helpful and supportive. I have felt fortunate often to find reviewers who were in fact interested in completing the reviews and whose written responses were welcomed as helpful and useful by authors. It has been a privilege to witness and participate in a genuine community of scholars, taking interest in and supporting each other's work in constructive ways. Most of all I wish to thank all who have submitted manuscripts to **ajer**. I have already had many comments from reviewers expressing appreciation for the quality of manuscripts sent to them for review.

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The Alberta Journal of Educational Research *Vol. XLIV, No. 4, Winter 1998, 349-365*

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District-Level Support for Site-Based Renewal: A Case Study of Secondary School Reform

Previous studies of secondary school reform have not given as much attention to the role of the district as is warranted by its potential influence on change processes. This study examined the role of district-level factors in enabling eight secondary schools to restructure their positions of added responsibility. After two years there was significant change on five of six indicators of organizational health. The district-level factors that contributed to the change were the actions of a central steering committee (consisting of administrators, union representatives, and support staff), an emerging image of professionalism in the teacher union, district history, individual personalities, and a shared sense that the district was unique in its region. The findings differed from the results of previous research in that leadership was more broadly distributed, a combined industrial-professional conception of teacher unionism contributed to innovation, and a strong and continuous central presence was required to support a decentralized change model.

Les études antérieures sur la réforme de l'école secondaire n'ont pas accordé assez d'importance au rôle du district malgré son influence potentielle sur le processus de changement. Cette étude a analysé le rôle de facteurs au niveau du district dans l'habilitation de huit écoles secondaires à restructurer leurs positions en situation de responsabilité accrue. Deux ans après le début de l'étude, on a noté des changements significatifs sur cinq des six indicateurs de bonne gestion organisationnelle. Les facteurs au niveau du district qui ont contribué au changement étaient les suivants: les démarches d'un comité d'organisation central (y siégeaient administrateurs, représentants syndicaux et personnel de soutien), l'émergence d'une image de professionnalisme dans le syndicat des enseignants et une vision partagée de la spécificité du district dans la région. Les résultats divergent de ceux des études antérieures sous trois aspects: le leadership était plus réparti; une attitude vis-à-vis du syndicalisme des enseignants qui liait des conceptions industrielles et professionnelles a contribué à l'innovation; et le modèle décentralisé de changement nécessitait une présence centrale et continue.

Constant change has not been part of the self-image of secondary schools (Hannay, 1995). In Cooley's (1997) aphorism, "all this talk about waves and

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waves of reform really refers to trends in the reform literature, not changes that are actually taking place in schools" (p. 18). A recent call for papers about replacements for traditional secondary schools generated few reports of models in place and many accounts of why secondary school change is so difficult (Raywid, 1997). Even successful exemplars decay, for example, when key personalities leave (Brouillette, 1997). In this article we describe a school district where leaders attempted to energize its eight secondary schools by giving teachers and principals the mandate and resources to restructure on the basis of criteria they determined themselves. After summarizing evidence that change occurred in the district, we identify some of the district-level factors contributing to reform.

Literature Review

Taxonomy of Approaches to School Reform: Perspective of the Study

Reformers share a common end. The goal is to improve the breadth and depth of student achievement so that all students (not just the university-bound) develop deep understanding (not just recitational knowledge) of fundamental concepts, principles, and habits of mind. But reformers differ on the means. Perspectives vary on three dimensions.

One dimension distinguishing reform approaches concerns the role of subject departments. Teaching-for-understanding proponents argue that improvement comes by strengthening teacher capacities in strong departments. For example, Kennedy (1998) sees the tasks of reform as the clarification of subject-based standards, creation of teachers' disciplinary knowledge (central ideas and the relationships among them), development of pedagogical content knowledge (the ability to represent complex concepts in understandable ways), and enhancement of attitudes to the subject (e.g., valuing the norms for creating knowledge in the discipline). In contrast, other reformers see departmental structures as inimical to teacher growth. Departments are said to create cleavages among teachers, imprison student learning in disciplinary cells, limit curricular options and the transfer of teaching ideas, and constrain the development of school vision (Hargreaves, 1994; McLauglin & Talbert, 1990; Siskin, 1994).

The second dimension distinguishes centralizers from decentralizers. Centralizers emphasize coordinated efforts to improve preservice training, career induction, certification of teachers on the basis of research-based behaviors, and integrated professional development (Darling-Hammond, 1998). Decentralizers advocate site-based management in which liberation from bureaucratic control enables autonomous schools to define their vision, recruit teachers, manage their resources, and take responsibility for the performance of staff and students (Ogawa, 1994).

The third dimension concerns conception of change. Change theorists focus on the nature of specific innovations and the role of change agents in adoption, implementation, and diffusion (Fullan & Stiegelbauer, 1991). Organizational learning theorists argue that the ability of individuals to learn new behaviors accumulates into a capacity of the organization to respond to changes in its environment, a capacity that is greater than the sum of its parts (Cohen & Sproull, 1995). Fullan (1997b) defined a position between the poles in which a

focus on change processes is embedded in a learning organization perspective. Fullan (1997a) argued that systemic reform involves an integrated set of changes in structures, cultures, and the use of time. When successful it creates a professional community that builds professional skills while supporting individual teachers' efforts to cope with change.

The perspective on secondary school reform taken in this study emphasizes the search for alternatives to departmental structures, decentralizing forces, and embeds change theory in an organizational learning perspective. Our focus in this article is on district-level factors contributing to reform.

Previous Research on District Level Factors Influencing School Reform

Previous accounts of secondary school change emphasized the role of national/provincial reform agencies (Knapp, 1997), networks of schools (Wasley, 1994), or individual schools (Johnson & Pajares, 1996). District-level factors have been included on the periphery in this research, but only rarely has the district been the main focus of the inquiry.

Studies of site-based reform suggest that most schools lack the capacity to reform on their own (Walberg & Niemiec, 1994). Yet Knapp (1997) found that schools in "ripe" districts responded more quickly to reform opportunities and Louis and Miles (1990) found that reform was more likely to occur when the district and school worked together in a dynamic, ongoing negotiation of the change process.

The district superintendent has been cited as the critical district variable (Prestine & Bowen, 1993). The problem in relying on the superintendent as the key agent of change is that superintendents spend little time on teaching and learning issues (Blumberg, 1985; Cuban, 1988). Those who do focus on curriculum can exercise a profound influence on schools, but they need to be skillful change agents, in place for an extended period (Fullan & Stiegelbauer, 1991). Superintendents may stimulate and support school change through interaction with principals. Their impact on teachers is typically indirect. The mechanisms of superintendent influence include involving principals in district goal-setting, frequent communication on instructional issues, and feedback on school growth plans that link school activities to district priorities (Hopkins, Ainscow, & West, 1994; LaRoque & Coleman, 1989; Rosenholtz, 1989). Other superintendent strategies associated with site-based reform include capacity-building activities such as the provision of funds for between-school visitations and the creation of a competitive pool of resources for school improvement projects (Darling-Hammond, 1995). Policy-making may not be sufficient to mandate reform, but there is ample evidence that district policies can frustrate it. For example, district standardized testing programs have been found to inhibit teacher movement toward authentic assessment and teaching for understanding (Grossman & Stodolsky, 1994).

In addition to administrator interventions, other district characteristics may contribute to reform. The most powerful of these is district history: the extent to which teachers have experienced previous change efforts as a positive force enabling them to increase their professional efficacy. For example, professional development schools are more likely to be established in districts with a history of site-based management, a record of innovation through a national network

of schools, or prior establishment of a professional development academy for district teachers (Grossman, 1994; Miller & Silvernail, 1994; Whitford, 1994). Huberman (1995) also cited district history, although he focused on individual teachers and drew different conclusions about the history's impact. He found that the prime determinant of an optimal career path for secondary school teachers (leading to experimentation and serenity rather than reassessment and conservatism) was the avoidance of major implementation efforts sweeping their districts in favor of individualized tinkering.

History interacts with leadership. Superintendents with a commitment to building district capacity are more likely to leave a history of innovation that provides a foundation for a district that is moving forward, detects new student and community needs, mobilizes resources to respond to them, and appraises the outcomes of new initiatives. However, leadership in a district can be exercised at more than one level. For example, Heller and Firestone (1995) found that much of the leadership for change was provided by teachers in schools.

Teacher leadership can be exercised in many ways. Of particular interest as our study unfolded was the involvement of union officials. Previous research has typically portrayed teachers' unions as an impediment to change. For example, Snyder (1994) found that attempts to introduce an internship program were hampered by union demands that interns be paid almost as much as first-year teachers, a move that rendered the innovation too costly to be implemented in many sites. But some unions combine concern for bread-and-butter issues (such as salaries and benefits) with a push toward professional issues (such as curricular changes, Bascia, in press). Professional unionism emphasizes the collective aspect of work in schools, blurs distinctions between workers and management, and flattens hierarchies (Kerchner & Caufman, 1995). Bargaining is organized around the need for improvements in schools, with contract negotiations including curriculum issues with economic items. Professional unionism emphasizes protection of the teaching profession over the defense of individual teachers and integrates self-interest and public interest in internal quality control processes (such as peer review). Few districts have enacted this conception of professional unionism, and the results in terms of teacher commitment and curriculum renewal have been mixed (Bascia, 1994). District union locals are influenced by the beliefs and actions of their national (and in the present case, provincial) leaders. For example, at the time of our study Ontario union leaders were considering bringing curriculum issues (such as destreaming/untracking) to the bargaining table (Martell, 1995).

In summary, although few studies have investigated district-level influences on school change, several factors (the role of the superintendent, district history, and conceptions of unionism) have been identified as possible contributors.

Research Question

Given the scarcity of studies of secondary school reform, we undertook a longitudinal case study of a district that adopted a site-based approach to change. Few district-level prescriptions constrained what schools could do. We previously reported between-school differences in response to reform opportu-

nities after one year (Hannay & Ross, 1997). The main research question guiding the research reported in this article was "What district-level factors contributed to secondary school renewal?" We wanted to understand why this district was able to devolve power to schools, an approach to reform not taken by any of the districts that surrounded it. In answering this question we focused particularly on the actions of key actors, especially senior administrators and union officials, and we were attuned to the potential impact of past experiences with change on contemporary reforms in the district. Before addressing this question we summarize quantitative evidence about the impact of reform efforts after two years to substantiate our claim that these schools were changing.

Method

Our research was conducted in eight secondary schools with 500 teachers in a central Ontario district. A ninth school, a secure facility operated on behalf of the Ministry of Corrections, was excluded, as were the elementary schools in the district. The district stretches for 850 square miles, encompassing small cities, towns and countryside, with no distinct center. Student populations were growing in the west, stable in the east. The district enrolls few nonwhites, although students came from a spectrum of economic backgrounds.

In September 1994 district officials agreed to maintain the resources allocated to positions of responsibility (department heads and assistant heads), despite other budget cutbacks.[1] Each school was encouraged to exercise its discretion in reallocating release time and administrative stipends previously assigned to department headships. School Restructuring Committees, each headed by two teachers, developed a school plan for implementation in September 1995.[2] In March 1995 we were invited to collect formative data about the schools' use of their reform mandate and to provide inservice on change strategies.

We conducted a case study of the district using an interpretive research design in which we investigated the actions of participants from the perspectives of the actors (Erickson, 1986). We built the credibility of our interpretations around qualitative research principles such as prolonged engagement in the site, persistent observation, constant comparison, progressive subjectivity, and member checks (Creswell, 1998; Merriam, 1990; Stake, 1995; Yin, 1994). A central component of our method was triangulation among data sources and investigators.

We were also participants in the change process. Our main contribution was to promote a culture of inquiry. We did this by feeding back to the schools quantitative and qualitative data (described below) about processes in the district and in individual schools. In addition to providing data summaries and our interpretation of them, we also modeled how co-chairs of school planning committees could help their staffs construct their own interpretations of the data. We provided inservice on action research strategies, supported teacher inquiries, and enlisted several district staff in research apprenticeships. We advised school and district planners on findings from research studies of secondary school change and delivered inservice sessions on instructional

improvement issues such as methods for implementing curriculum integration.

Sources of Data

Main qualitative data. Evidence about district-level influences came from two sources. The most important source was individual interviews with eight members of the Steering Committee: two supervisory officers (equivalent to assistant superintendent), three union leaders, one secondary principal (who chaired the district's Secondary School Principals' Association), and two district support staff. We also interviewed the director of education (CEO, equivalent to superintendent). Before the interview, participants completed a self-administered questionnaire by rating (on a 1-10 scale) the extent to which the Steering Committee fulfilled eight leadership-for-change functions (adapted from Firestone, 1989). They rated their personal contribution to each function. Some wrote in additional functions. Each informant was interviewed for 45-60 minutes in November 1995. The interview was opened by asking for details about the three leadership functions given highest ranking in the survey. Subsequent questions probed rationales for site-based decision-making and teacher leadership, the extent to which new conceptions of unionism had emerged in the district, and facilitators and obstacles to project progress. Interviews were transcribed and entered into ATLAS/ti, a qualitative data analysis software program (Muhr, 1995). The coding scheme was developed from the data through analytic induction. The final version provided codes for leadership functions, history, personalities, rationales for features of the project, the new teacher unionism, facilitators, obstacles, and project outcomes.

Additional data were obtained from focus group interviews with the restructuring committees in each of the eight schools. Each of the focus groups averaged five teachers, equally divided between members of the 1994 (preimplementation) and 1995 (first-year) committees. The 60-minute sessions (in November-December 1995) probed successes and obstacles, explanations for events, personal meanings attached to committee membership, and linkages between restructuring and reculturing, while providing opportunities for each group to pursue its own agenda. Audiotapes were used to create detailed session notes that included selected verbatim quotations and interpretive notes generated immediately after each taping.

Additional qualitative data used for triangulation. Each of the findings from the two sets of qualitative data collected in late 1995 was tested against other qualitative data collected in 1996 and 1997: interviews with teachers appointed to new positions of added responsibility (N=35-37 depending on the year), principals (N=8), co-chairs of school restructuring committees (N=16), and field notes created during inservice sessions and meetings with members of the central Steering Committee, school restructuring committees, and Principals' Association. None of these additional qualitative data is cited directly in this article.

Quantitative data embedded within our qualitative argument are quantitative evidence of school change from every-teacher surveys administered before the implementation of new organizational structures (1995), after one year (1996), and after two years (1997). The instrument consisted of 49 Likert items

representing six indicators of organizational health. The internal consistencies of the scales ranged from .59 to .82 (average alpha across all scales and years was .75). The indicators were as follows.

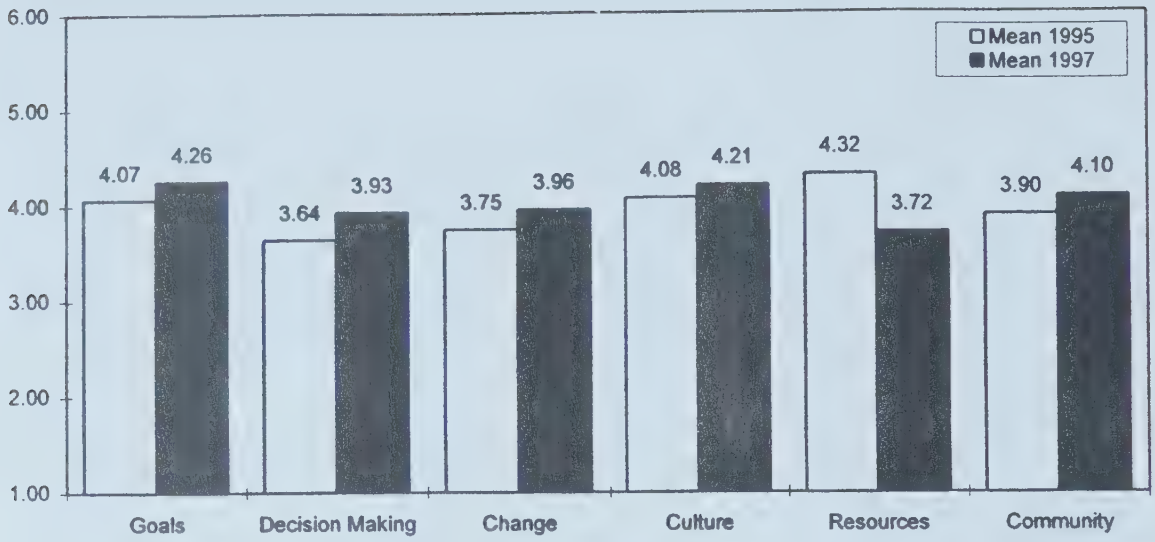
- *School goals and priorities*, that is, consensus about directions, especially continuous improvement goals, and the use of school priorities by teachers when making professional decisions (Darling-Hammond, 1995; Hannay, 1995; Hopkins et al., 1994; Rosenholtz, 1989).
- *Shared decision-making*, that is, teachers feeling well prepared to participate in key school issues and having opportunities to deliberate with colleagues with different expertise than their own (Heller & Firestone, 1995; Louis & Smith, 1990; Ross & Webb, 1995).
- *Positive attitudes to school change*, that is, teachers' belief that past attempts to bring about change had beneficial outcomes (Anderson & Fullan, 1989; Darling-Hammond, 1995).
- *School culture*, that is, teachers' support for collaborative inquiry, dedication to constant improvement, and to mutual self-help (Cousins, Ross, & Maynes, 1994; Hannay, 1995; Hopkins et al., 1994; Little, 1982; McCartney & Schrag, 1990).
- *Access to resources for professional learning*, that is, teachers' belief that they have adequate resources (materials, budget, and supportive colleagues) to change their practice (Darling-Hammond, 1995; Fullan, 1993; Huberman, 1995).
- *School and community*, that is, teachers' belief that the school and community share a common purpose (Darling-Hammond, 1995; Epstein, 1988; Fullan, 1990; Louis, 1989; Rosenholtz, 1989).

Results

Evidence that Change Occurred

Figure 1 summarizes the results of the annual surveys. The graph shows that there was a statistically significant change in all measures. In 1997 teachers reported greater consensus about school goals, greater participation in school decision-making, a stronger belief that past change efforts in the school had beneficial outcomes, and belief that there were stronger ties between the school and the community. On all these indicators the trend was flat in the first year (means and standard deviations for the 1995 and 1996 surveys were reported in Hannay & Ross, 1997); the differences became statistically significant only after two years in the project (i.e., in 1997). There was also a significant decline in teachers' perception of the availability of resources to bring about change. This decline occurred between 1995 and 1996 following the election of a government committed to reducing educational costs.

The quantitative data corroborate qualitative data from the first full year in the project (Hannay & Ross, 1997). Although there were variations between schools, interviews with teachers indicated that structures that cut across subject departments were created, new ways of interacting within these models developed, and the role of school administrators changed. Reculturing was underway as new images of teaching and learning emerged, support for a culture of inquiry grew, and cross-department collaboration increased. Finally, there was evidence that schools were exploring new ways of using time.



	Goals		Decision Making		Change		Culture		Resources		Community	
	'95	'97	'95	'97	'95	'97	'95	'97	'95	'97	'95	'97
SD	0.91	0.84	0.94	0.93	0.88	0.83	0.67	0.69	1.02	0.80	0.82	0.90
N	448	474	451	472	449	472	422	476	447	474	448	472
t	-3.398		-4.692		-3.622		-2.961		9.962		-3.517	
p	.001		.000		.000		.003		.000		.000	

Figure 1. Indicators of organizational health (1995 vs. 1997).

District-Level Influences on School Reform

The quantitative data and the larger bank of qualitative data indicate that change was occurring. To understand why this district was able to change when districts around it were not, we examined the district leader interviews and school focus groups. The following district-level factors contributed to secondary school change.

Leadership of the central Steering Committee. Although the Steering Committee (a representational group made up of senior administrators, union officials, a school administrator, and district support staff) did many things, a few leadership for change functions stood out. The first was the articulation and maintenance of a vision of the initiative as a site-based, program-driven, teacher-led reform of secondary schools. Committee members described a framework for change. Supervisory officers said, "We only had broad parameters in our minds as to what that would be ... our visioning was about the visioning of change [rather than] the vision of what a structure would look like at a school" (SO1).[3] Central leaders avoided providing specific models, despite strong pressure from some teachers to do so, because they believed "a template would have been counterproductive" (SO2). The committee articulated a rationale for restructuring department heads ("the job really had changed, the job wasn't counting test tubes and typewriters, etc.... it really was a job that was based on people" (union2), defended site-based change, and promoted teacher leadership.

Providing resources, particularly to help teachers enact the vision in their own schools, was the second contribution. Teachers found it helpful to "hear what was happening in other schools and receive guidance and assistance" (SRC-J). All Steering Committee members visited schools to support local planning.

Third, the Steering Committee provided encouragement and recognition. For example, the co-chairs of school restructuring committees received awards from the district's Staff Recognition Program, symbolizing the approval of their peers and trustees. A union officer emphasized the importance of giving "people a pat on the back that they're on planning committees, to point out that we recognize this is not an easy task" (union2), a theme also prominent in reports from administrators and support staff.

The fourth key function was adapting standard operating procedures, especially modifying the collective agreement. In a time of shrinking budgets trustees guaranteed unreduced funding for positions of responsibility and gave schools control of the funds. School restructuring committees believed this was crucial to their credibility. "It helped us in this school in terms of [those] people saying that there was a hidden agenda and that they were trying to save money. If we had not had that money we would have been dead" (SRC-A). Site-based decision-making created conflicts that the Steering Committee resolved on a case-by-case basis. An administrator reported that the Steering Committee also created guidelines by "sit[ting] down with [co-chairs of school restructuring committees] in a very democratic and open forum and set[ting] some basic ground rules for how those funds were to be used, monitored, and accounted for" (SO2).

The Committee monitored progress by devising tasks that enabled schools to reflect on their progress, created summaries facilitating data interpretation, and developed with school representatives rubrics for assessing school plans. Support staff regarded "that kind of self-monitoring [as] ... the quintessential assessment routine" (staff1). All Steering Committee members, particularly union officials, visited schools to talk through problems ("we've had to put out a lot of brush fires" [staff2]). For example, department heads experiencing an erosion of titles and allowances or the phasing out of their positions needed to be heard. Steering Committee members also spent time promoting a culture of inquiry in which thoughtful data-collection informed site-based decision-making. Although support staff wondered whether reculturing could be done by outsiders ("it would be arrogant to suggest that we would be involved in much that is overtly changing culture" [staff1]) they felt that the Steering Committee could lead by example in its own procedures.

District history. History contributed to initiation and continuance. First, previous experience brought administration, trustees, and union leaders together. They suspended their doubts about the motives of others because trust had been established. The previous CEO initiated a productive relationship by working with union leaders to eliminate a backlog of grievances, finding face-saving compromises. As the current CEO continued the practice of resolving disagreements with a minimum of rancor, informal procedures began to replace legalistic moves. One senior administrator described the process this way:

> We started to do little things like going down to the [union] offices to negotiate ... There are always ... stories of hardship ... in dealing through a lot of those, the [union], the leadership of it, began to realize that indeed we did have a heart. And there were some real success stories, that is, placing teachers that had to be laid off and working hard to make sure that they got back into positions,

> working with long-term disability teachers to see what their problems were and how we could help them. So that evolved over several years. (SO2)

Resolving these issues enabled teachers and administrators to minimize disruptions ensuing from government edicts. One policy (The Transition Years initiatives) could have been used to eliminate department-based positions of responsibility, but the Board did not do so. Another policy (the social contract) made it possible for the district to wrest concessions from its employees, but both sides agreed to mute the policy's impact on the work lives of teachers. This decision had a lasting impact on the trust among partners. The spirit of compromise begun 10 years earlier enabled the union and administration to develop agreements outside the collective bargaining process, bringing issues (e.g., staffing for adult education) to the formal table only after understandings had been reached.

The district also had a history of site-based management. For example, the director of education involved principals in resource allocation.

> E[ducational] A[ssistant]s are deployed on a site-based level, whereas they used to be deployed by the most senior of administration. The chief superintendent used to guard it all and would meter them out according to ... who is the loudest ... who's the favorite son today ... We've moved away from that totally ... There's the dollars. Now you sit down with your colleagues, led by the superintendent of schools ... You work out the protocol and how you are going to handle it. (CEO)

The district had a history of defining policy parameters in which schools developed local variants on homework policies, codes of behavior, and student assessment. According to one supervisory officer, "We provided a guideline and they put the meat on it based on their school-community's context" (SO2).

The second historical factor was the collective memory of bad times. One year the district accounted for one third of all secondary teacher grievances in the province. A union official observed, "There were enough teachers around who remember the days 10, 15 years ago when there was a tremendous amount of conflict ... we had a couple of strike votes" (union3). Both sides recalled distasteful events from this period and worked hard to prevent such a climate from returning.

Memories of top-down failures ("we laid down a universal plan and it was just a disaster" [union1]) encouraged solutions that involved each school finding its own path. Recalling the past also contributed to decentralized teacher leadership. An earlier attempt by district union leaders to distribute resources led to accusations of self-interest. In addition, attempts to tinker with departments had not worked. From a senior administrator's perspective, "Whenever changes did take place it was kind of 'change the name but nothing really fundamental' changes" (SO1). A district support staff member observed that "most teachers who are dynamic in doing something creative with their classes ... have come up against the organizational structure of schools a number of times and been frustrated by it" (staff2).

Although memories of the past supported project initiation, history was sometimes an obstacle, particularly when teachers recalled government initiatives that disappeared after many fanfares. A district consultant noted, "Those who had the longest tenure ... and had seen the secondary system buffeted by

[failed initiatives]; I think there was a degree of cynicism on their part that this too shall pass" (staff2). Some recalled situations in which teachers were given decision-making authority that was subsequently taken away. But shared history was more a positive than a negative factor in creating the conditions for the project.

The key role of personalities. The ability of administrators, union leaders, and trustees to work together was critical.

The CEO proposed the project during contract negotiations and enlisted the support of trustees and supervisory officers. Teacher leaders were struck by the willingness of senior administrators to rewrite policy.

> Most certainly this wouldn't work without the support of the two top [supervisory officers]. The money wouldn't flow, the priority for the time and the PD wouldn't be there and the fact that they've ... got the trustees on side. It was probably for them a bigger step than it was for us because they gave up control ... Had it been a real disaster the teachers would have walked away, hurt and damaged, but it would have caused more damage to the two [supervisory officers] with the trustees. (union1)

Senior administrators said they could be flexible because trustees allowed them to be.

> They didn't meddle in the day-to-day mechanics of this restructuring. They trusted the employee group and the senior administration would work cooperatively and things would flow out nicely ... when they saw the process unfolding they were very complimentary, very supportive, and continue to be. (SO2)

Union leaders felt their support was essential because "if this process ever loses the support of the executive of this district it will die" (union2). A key factor was the continuance of particular individuals in key roles "that allows for just the opportunities to work together and to have some success and to build the trust and resolve the problems" (union3).

Local union leaders took risks. Most respondents believed that provincial union officials were opposed to the project. The regional union representative "said clearly to us that he didn't agree" (union1) with the district leadership's stand. Provincial union leaders were concerned about the difficulty of writing contract language for such a complex and dynamic innovation. For example, they were concerned about "two people at different schools doing exactly the same job and receiving different pay ... that could ... discourage transfers" (union2). Provincial leaders worried that "it's decentralized bargaining with people that really have not been trained to bargain ... the federation has lost the power to regulate that change" (union2). District officers were also criticized by other union affiliates, as indicated by a principal who reported that "there would be many districts in the province that would like to shoot us if they could." Opposition from provincial officials focused on bread-and-butter issues like the threat to department head entitlements. They also feared that cross-departmental structures might reduce the solidarity of like-minded teachers united by disciplinary identity.

Pressure from provincial union officials was mitigated by other factors. The district local had a history of successful independence. For example, they participated in a teacher evaluation policy that deviated from provincial union

ideals. This policy was viewed as a success, encouraging local leaders to continue on their own path. Provincial union officers respected local leaders and never publicly disagreed with their positions.

Union leaders were also pressured by teachers who lost money or status. A principal reported, "There is some feeling among current department heads ... that the federation is selling them out; they should be protecting their positions as opposed to encouraging change." Pressure from teachers was assuaged when union leaders visited schools to respond to concerns.

Although district union leaders continued to follow conventional union practices, they added a commitment to change that was not previously part of their role. They helped develop a collective agreement that encouraged between-school variation, puzzled over strategies to help slowly moving staffs accelerate their pace, and celebrated when school teams broke new ground. A new conception of teacher unionism was emerging in the district. Relationships among union leaders, administrators, and trustees were less confrontational, and employers and employees were making a common cause for education in the community, for example, resisting together plans to amalgamate school districts. In dealing with individual grievances and teacher policy breaches the union was motivated by a concern for the teaching profession as well as with its obligation to defend individual teacher rights.

There were some counterindications. Union leaders did not include curriculum items in collective bargaining, believing they should be determined at a provincial level. In addition, union leaders felt they "must support even the individual member who you might want to shoot, who has done something really unprofessional" (union3). Teachers at risk of discipline received full support to ensure due process, although that "doesn't mean we are going to ... come up with an OJ [Simpson] defense" (union2). District officials saw their affiliate as an industrial union fighting for its members, even as they were experimenting with new images of how they could serve a broader array of stakeholders. As one put it,

> You have an obligation to represent your members when it comes to the crasser things such as salaries, and benefits, and working conditions, and a number of other things. That because you have this good working relationship, perhaps even on a personal level, does not mean that you should somehow soften your principles on other issues, and in fact if you do so, it's a disservice to your members. (union2)

Institutional self-consciousness. The shared history and union-administrator partnerships combined in an image of their district as unlike others. This view gave teachers (first quotation below) and administrators (second quotation), a shared identity.

> The more we went out and ... discovered there were other areas where things were happening ... most often boards were saying We've got to cut the budget by 50% ... we are going to reduce from 18 positions to 8 ... and no surprise to anybody, there was outrage all around. (union3)

> There are other [districts] in the province struggling with this ... some [districts] who possibly have not garnered the trust that they need with their unions

> because they have moved quickly to make it a win-lose, so that they win and the [unions] lose, and whenever that happens you'll find them pushing back. (CEO)

Project participants shared a sense that education was under siege and that they were providing a model for other districts.

Discussion

The survey results in Figure 1 and the qualitative evidence (Hannay & Ross, 1997) indicate significant changes occurred in school culture and processes. However, we collected no student outcome data for this portion of the study (we are doing so now), so we cannot claim that the reform has led, at this time, to improvements in the depth and breadth of student achievement. What we can claim, and substantiate, is that a first step—measurable changes in teachers' attitudes to their organizational roles—has occurred.

In this study we found that a combination of factors enabled this district to be a beacon of secondary school reform. Some of the factors contributing to this district's ability to implement secondary school reform (e.g., the specific strategies undertaken by the Steering Committee) could be transplanted to other jurisdictions. Other factors (e.g., the district's history of union-management cooperation and the willingness of individuals to take professional risks) need to be found or developed at the site or replaced with alternate forces of similar impact. Our data suggest one set combination of factors contributing to district support for secondary school reform. We are certain other models are possible.

Our results confirmed findings from previous studies, particularly the contribution of superintendent leadership and a shared history supportive of change. Nevertheless, our results differed in three ways.

First, leadership in these schools was more broadly distributed than in other studies. The CEO worked through supervisory officers (three assistant superintendents); union officials were full partners in setting project directions; key decisions were made in schools by restructuring committees dominated by teachers and by teachers appointed to new leadership roles. Ample redundancy was created—each leadership function was fulfilled by more than one agent. In addition some of the leadership tasks (e.g., monitoring the effects of the project and providing inservice on change processes) were shared with outsiders (university researchers).

Second, previous researchers have argued that teachers' unions are more likely to contribute to change when a professional model is adopted. In this conception of unionism the union defends the profession rather than individual teachers (Kerchner & Caufman, 1995). In our study union officials provided leadership for change from within an industrial union model. Images of a new unionism had begun to emerge: Union officials adapted the collective agreement to allow for flexibility among schools, thereby challenging the subject department structure of the conventional high school. However, union leaders were punctilious about staying on their side of the table. Industrialism and professionalism represent ends of a continuum with many gradations. Our findings suggest that a mid-point on the scale may be more conducive to change than the ideal types at either pole. Rigid industrialism is unlikely to foster the collaborative labor relations associated with reform (Bascia, in press),

and it is difficult for unions to maintain a professional stance over an extended time (Kerchner, 1996). Another possibility is that multiple models of unionism may exist at the same site, with union leaders shifting among them in response to specific issues.

Third, we found that a strong and continuous central presence was required to support a decentralized change model. Subject departments persist because they meet an array of administrative and teacher needs and are supported by vibrant subcultures. Without vigorous intervention by central agents, it is likely that local reformers would have been worn down like the reformers in the high schools studied by Isaacson and Wilson (1996). A central presence was also important in giving control to teachers. Although site-based decision-making has been motivated by a desire for stronger teacher leadership (Ogawa, 1994), it may have the effect of consolidating principal control (Taylor & Tashakkori, 1997). We found that principals were given virtually no official role in the determination of local changes, in contrast to other studies that found that interaction between superintendent and principal was crucial to success (Rosenholtz, 1989). By bypassing the principal the district was able to engage teachers in an exploration of alternate ways of conceptualizing secondary school education, thereby building the capacity to change in all secondary schools. As the project unfolded we became aware that differences among schools were related to what individual principals did to support, ignore, or thwart the exercise of teacher leadership in their school (Hannay & Ross, 1997). Innovations tend to come in pairs, alternating as the deficiencies of one side of the pair become known (Morris, 1997). It would not be surprising if there were a swing toward greater principal control of site-based events. Our observations to date suggest that the district—its agents and history—will play a key role in determining how teachers and principals share power.

Our continuing case study demonstrates that secondary school reform occurs in districts populated by purposeful individuals imbued with the memory of past events. These conditions provided the foundation that enabled schools to develop structures and ways of operating that cut across subject departments. In January 1998 the Ontario government merged this district with an adjacent board of similar size, a district with a different array of administrators, trustees, union officials, and a distinct history of response to change opportunities. Although the districts opposed the merger, their CEOs and trustees moved swiftly to integrate their cultures. Our longitudinal study is now focusing on the impact of the merger on the 16 secondary schools of the consolidated district. Although the context in which they work will be far more complex and conflicted, we anticipate that district-level factors will continue to exert a powerful influence on how these schools respond to calls for reform

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Notes

1. Before the initiation of secondary school renewal, the district exercised fairly tight control over schools. Key decisions about staffing, resource allocation, and curriculum were made

centrally by supervisory officers following prescriptive formulae. However, it will be argued in the district history section of the Results that the district had been moving toward a site-based approach for some time.

2. The site-based reform or devolution movement has been associated in the United States, United Kingdom, and New Zealand with the neoconservative agenda for schools. Proponents argue that giving schools control of their resources will make them more accountable. If parents are able to choose which school their children will attend, effective schools will strengthen and inept schools will wither away. Recent reviews (Whitty, 1997) suggest there is little evidence to support this claim. We found no evidence to suggest that the site-based reforms in this district were motivated by the neoconservative agenda.
3. Quotations from Steering Committee members are identified by role (i.e., CEO, SO [supervisory officer], union, principal, staff [district support staff]). If more than one individual in the role was interviewed, they are designated as SO1, SO2, and so forth. Members of School Restructuring Committee focus groups are identified by school (e.g., SRC-A for school A). Teachers appointed to new positions of responsibility are identified by role and school (e.g., POR-A1).

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Year-Round Schooling: A Catalyst for Pedagogical Change

In this article we argue that the implementation of a year-round school calendar served as a catalyst for innovations in teaching and learning and for school-level capacity-building by facilitating teachers' planning, formal and informal talk about teaching and learning, team-teaching, philosophically based programmatic changes, and a culture that supports innovation. We conclude that receptivity to change and ability to make conceptual links are keys to improving the learning environment for students and that whether the impetus is first- or second-order, structural or conceptual, is less important than is sometimes believed.

Dans cet article, nous soutenons que la mise en oeuvre d'un calendrier scolaire qui s'étend sur douze mois a servi de catalyseur pour des innovations dans l'enseignement et l'apprentissage, ainsi que pour la création d'habiletés à l'échelle scolaire. En effet, une telle démarche a facilité: la planification de la part des enseignants, les conversations (formelles et informelles) au sujet de l'enseignement et de l'apprentissage, l'enseignement en équipes, l'application au programme de changements basés sur des idées philosophiques, et le développement d'une culture qui appuie l'innovation. Nous concluons d'abord que la réceptivité aux changements et l'habileté à imaginer des liens conceptuels constituent des facteurs clés pour l'amélioration de l'environnement d'apprentissage des élèves et ensuite, que la nature de l'impulsion (qu'elle soit de premier ou de second ordre, structurelle ou conceptuelle) importe moins que l'on a parfois tendance à croire.

Over the past few decades, the literature on school change has attempted to differentiate between school reform and restructuring (Darling-Hammond, 1998), between first- and second-order change (Murphy, 1992; Taylor & Teddlie, 1992; Wehlage, Smith, & Lipman, 1992), and between structural and cultural change (Fullan, 1993). Each of these dichotomies suggests that modifications that affect how we conceptualize teaching and learning are central to effective educational reform, whereas those that focus primarily on organizational structures defined by Fullan (1991) as "roles, finance and governance, and formal policies" (p. 88) are less successful. Most recently, Darling-Hammond (1998) calls for a shift from designing structures and policies to

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effect control to capacity-building or "developing the capacity of schools and teachers to be responsible for student learning and responsive to student and community needs, interests, and concerns" (p. 39).

One initiative that seems to be receiving renewed attention and interest in today's climate of rapidly changing demographics, fiscal restraint, and concern for public education is a move from a traditional school-year calendar to one known primarily as year-round schooling (YRS). Year-round schooling is frequently presented as a complex and demanding solution for problems of overcrowding and fiscal constraint rather than as an opportunity for capacity-building. In this article we examine the relationship of year-round schooling to changes occurring in curriculum and instruction in three schools. YRS might normally be considered a first-order calendar change in that it does not usually extend the number of days a student spends in school but simply redistributes instructional and vacation days throughout the calendar year. However, we have found that in many instances this first-order change appears to have triggered, or at least facilitated, second-order, conceptual change related to teaching and learning.

In order to promote better understanding of the relationships between first- and second-order change, between a new school calendar and capacity-building at the school level, we describe the experiences of three schools that implemented a year-round school calendar. The discussion is situated in an overview of the literature related to two distinct but, in this case, interdependent topics: year-round schooling and educational change.

The Literature

Although the literature on year-round schooling increasingly suggests that a calendar change is associated with increased learning opportunities for students and with improved student outcomes, it is also emphatic in its recognition that these changes cannot be attributed solely to the new school calendar. We first provide an overview of the literature related to YRS and student outcomes and then attempt to situate it in some of the current thinking about educational change.

Teaching and Learning in Year-Round Schools

Overall, the body of research into the academic impact of year-round schooling has tended to focus on student achievement as assessed by standardized tests, with little attention to broader issues of teaching and learning. Even with a relatively narrow focus on standardized testing, some of the studies have been found to be deficient, either in terms of conceptualization or in design (Hazelton, Blakely, & Denton, 1992; Hough, Zykowski, & Dick, 1990; Zykowski, Mitchell, Hough, & Gavin, 1991). Of the more frequently cited studies, some have found no statistically significant difference in student learning (Goren & Carriedo, 1986; Hazelton et al., 1992; Merino, 1983; Zykowski et al., 1991). A few others have concluded that although there may be a positive impact for low SES or at-risk students, the overall impact on student achievement is neutral (Atwood, 1983; Capps & Cox, 1991; Gandara & Fish, 1994; Perry, 1991; Serifs, 1990). Finally, others find that YRS does improve the academic achievement for all groups of students (Baker, 1990; Bradford, 1993; Mutchler, 1993).

Most recently Kneese (1996), in a meta-analysis of YRS, was able to find only 15 studies published since 1982 that met her minimum criteria of having a control or comparison group and using student achievement as a dependent variable in a year-round school program that had been operating for at least one year. As a result, Kneese (1996) concluded that there is evidence of a slight positive impact on student achievement. She and others reporting the same result are unanimous in suggesting that the change is not due solely to the change in calendar, but to a concomitant change relating to the teaching and learning environment.

Change and Year-Round Schools

Fullan (1991) identified vision-building, initiative-taking and empowerment, evolutionary planning, monitoring, staff development, and restructuring as key components of effective school change. He cited Miles' (1987) work on vision and suggests that vision involves a sharable and shared understanding of what the school might look like and of how to get there. He concluded his discussion with the statement that "while virtually everyone agrees that vision is crucial, the practice of vision-building is not well understood" (Fullan, 1991, p. 83). Although we have found many examples of year-round school implementation we would describe as successful, few have started with the development of a "shared vision of what the *school* could look like" (p. 82, italics in the original) or of any of the other components identified above. Nevertheless, when YRS has been successfully implemented, renewed and shared vision appears to have been generated as a result of the calendar change.

In 1993, Fullan's emphasis seems to have changed somewhat, as he identifies the need for a more fluid and iterative process described as "ready, fire, aim" (p. 31). Here he suggests that although it is important to prepare for a change, and to have a rough idea of the direction in which one is heading, "crystallizing new beliefs, formulating mission and vision statements and focusing" (pp. 31-32) may well come later. In fact this approach more closely resembles the situation in most YRS change processes.

Sometimes, in a desire to improve the educational opportunities of students, a school community may choose to change to a single-track, year-round calendar in which students and teachers begin school earlier in the fall and the lost vacation time is redistributed more evenly throughout the school year. The change generally begins with a vague notion that more regular breaks, perhaps supplemented by additional enrichment or remedial activities, may be beneficial for students, but often lacks a strong vision for how this may actually occur. The multitrack calendar capitalizes on this altered timetable by organizing several discrete groups (or tracks) of students and teachers in a staggered and overlapping schedule. It is generally instituted with a broad goal of saving money or of accommodating more students in existing space. Again, vision related to a changed educational process rarely accompanies consideration of capital outlay. In each case, if implementation is successful, the "aim" of improved educational outcomes for students seems to come later, after the "ready, fire."

Another recent tenet of change theorists is Fullan's (1993) oft-quoted dictum to "reculture rather than restructure" (p. 68), which is sometimes used to

support the position that changes in structure will not effect desired capacity-building in a school. He hypothesizes that "reculturing leads to restructuring more effectively than the reverse" (p. 68). Hargreaves and Fullan (1998) reiterate the sequence of effective educational change that involves modifying relationships first and then permitting structural change to follow. They write, "when teachers really put students and their connections to students first, structural changes often follow very close behind" (p. 25). However, they note that without structural changes participants may be overwhelmed by the educational innovations.

We have noted that the opposite may also be the case, that is, that restructuring may lead to reculturing. In this article our purpose is not to assess the impact of YRS on student achievement, but to examine in more detail how the structural change to year-round schooling seems to encourage a new culture of teaching and learning. We hope this examination will support a better understanding of the relationships between structural and conceptual change.

Our Approach

The schools described in this article were research sites in three separate studies of year-round schooling conducted by one or both of the authors. Two of these occurred in elementary schools: one a single-track, the other a multitrack school; the third took place in a five-track junior high school. Data were collected through school visits; open-ended interviews and conversations with teachers, administrators, students, and district personnel; and examination of print materials. In each case, interviews with a minimum of four key informants were held, and at least two days were spent observing in the school. Insofar as possible, we permit the respondents to speak for themselves, although frequently in the interests of space we summarize their comments. We chose these specific schools because, although located in different geographic areas, all three shared what we perceived to be a supportive environment for innovation connected in some way to the year-round school calendar. Both the similarities and differences, we believed, would help us to understand the relationships of structural and conceptual change.

One of the elementary schools, Mount Sinai, is located in a district with an extensive, long-running, and well-established YRS program (all names of schools and people used in this article are pseudonyms). This school is a large multitrack school (1,300 students) serving a relatively homogeneous, predominantly white population. The other elementary school, Provost, is smaller (450 students) and serves a more urban and at-risk student body by means of a single-track schedule in a district where the norm is still the traditional school calendar. Stephen Lewis is a five-track junior high school, the 720-member student body of which is also quite diverse and perceived to be at risk. Like the second school, there are few other YRS in the district, and district-level support is not institutionalized.

For this article our analysis of the data focused on identifying the themes and patterns that helped us to understand the relationships between structural change and conceptual issues, as well as the links between first- and second-order change. To demonstrate some ways in which a change in school-year

calendar has been associated with pedagogical change, we first present a vignette of some of the change initiatives in each school.

Profile of Mount Sinai School

Mount Sinai Elementary School has a long history of being on a year-round school schedule, sometimes single-track, but most frequently multitrack. When the incumbent principal Dr. Valerie Shipley began her tenure 10 years ago, the school was on a multitrack schedule. After her first four years the school moved to a single-track "E" schedule owing to a temporary decline in student enrollment. Although the presence of everyone in the building at the same time provided a welcome opportunity for the staff to interact as a whole, all were prepared for a reversion to a multitrack schedule as enrollment increased. Indeed, after a two-year period, the school changed back to a four-track calendar (tracks A, B, C, and D), which has now been in effect since 1993.

For the last 10 years the administrative structure has remained the same, one principal and two assistant principals; but the conceptualization of their duties, particularly those of the assistant principals, has changed. Initially, the assistant principals were assigned to grade levels K-4 and 4-6 promoting what is termed *horizontal integration,* the sharing across grade levels regardless of track rotation. It became apparent that this approach facilitated students' affiliation with their grade level rather than their individual class or track. However, having one administrator responsible for students during their primary (K-3) years, and another during their next three years, seemed artificial and somewhat fragmented. Administrative assignments were subsequently changed to facilitate greater continuity for students and their parents through what was called *vertical integration.* Thus during the past four years, one assistant principal has been assigned to tracks A and C and the other to tracks B and D. Valerie informed us that this "helps with curriculum discussion, it helps with parents, it helps because you know the kids from K-6." The new vertical integration brought about a greater sense of the school as a whole and better understanding of individual students who could now be followed by the same administrator through their elementary school experience. At the same time, a creative approach to scheduling enabled the school to maintain its horizontal integration. The staff developed a six-day cycle and assigned the specialist teachers (music, art, PE) in such as way as to permit a common planning time for each grade level across all tracks regardless of the rotation. When asked whether other district schools were also on the six-day schedule, we were told this was the only one and that they had "just figured it out." Previously, the teachers had not been aware of the extent of their isolation, but the opportunity for interaction provided by two years on the single-track schedule when everyone was in the school at the same time had brought the need for extended communication to the forefront. We were informed that the increased horizontal integration had resulted in more sharing of materials, better utilization of common spaces allocated to specific grade levels, and increased talk among teachers about their teaching and learning

Soon after the school moved back to a multitrack schedule, the district instituted a middle school philosophy that involved the intended transfer of grade 6 students to designated middle schools. However, the policy preceded

the capacity of middle schools to include all grade 6 students. At Mount Sinai the fact that their grade 6 students would have to wait for two years to actually attend a different building was not a deterrent to implementation of the different philosophical approach. Recognizing that they could capitalize on the fact that middle school buses ran by the door, Valerie and her staff decided that grade 6 students should attend school not on a rotating track schedule, but on the traditional middle school calendar. To facilitate this Valerie requested that the district remove a wall from one wing of the building, which then became the traditional-calendar middle school within the existing multitrack school. Here two classes of grade 6 students were combined, with two teachers who team-taught to offer the middle school program "as much as is possible within an elementary school." This innovation ended in 1998 when a new middle school opened and the grade 6 students from Mount Sinai moved to a new building. However, teachers perceived that on an interim basis, the different grade 6 schedule had provided students with an excellent transition to middle school. The students with whom we spoke definitely supported this perception; one stated, "Now, you actually see that you have accomplished something and that you have made it through elementary school, you can say you have made it through a school, you can move on to another school. New people and stuff."

A boundary change, coinciding with the departure of grade 6 students to the new middle school in the fall of 1998, was expected to bring approximately 120 new students from grades K-5 to the school. Planning had begun the previous year to accommodate them, perhaps by adding a new alternative configuration to the school. Valerie had discussed with her staff the possibility of housing them in the old grade 6 wing and offering a multi-age, cross-grade approach. This would have a number of potential educational benefits, as well as the advantage of being the least disruptive, in terms of space allocation, to the rest of the school. She laughingly stated, "Well, I haven't really told the building people yet they're going to have to put that wall in. I told them, 'Take it out.' I haven't told them, 'Put it back in,' yet. But I will have to do that at some point."

When asked how she handled staff meetings and communication with some teachers on a multitrack schedule and others on the traditional middle school schedule, Valerie outlined an elaborate system of representative committees that, she said, conducted the business of the school. When she had previously attempted to make decisions with her 60 staff members present, it had been an unwieldy process she described as a mob. On the multitrack schedule, she has "a lot of small meetings, with different groups. They join one of our groups that really runs this building. It's site-based. So I have grade-level chairpeople, a person at each grade level and for special areas and special ed, who does a lot of the semi-administrative kinds of things." She informed us that she conducts monthly staff meetings primarily for information, communicates on a daily basis with the teachers via e-mail, and convenes the committees as necessary. For example, at the budget committee, grade-level chairpeople who were paid a stipend by the district made decisions concerning the allocation of school financial resources. It should be noted that this was not a true site-based management philosophy as Valerie bemoaned the fact that she did

not have the degree of flexibility to innovate that she might have if she had control over staffing.

When we commented on the number of changes occurring at Mount Sinai School, Valerie shared her belief that the year-round schedule forces teachers to be more flexible. "There is something about having to move every nine weeks which makes you more organized and more ready to innovate."

Profile of Provost School

Year-round schooling in Provost Elementary School was not a district mandate. In fact here teachers had fought for permission to implement the single-track schedule that had been in place for four years when our study was conducted. They described how they had held parent meetings, conducted surveys, and stormed the board with demands to change to the single-track schedule, one that they perceived would enable them better to meet the needs of their at-risk student body. One stated:

> We were really excited when we first went to the year-round schedule. We really fought to get it and we all went down to the board and fought for it. I was in resource and I thought 20 extra days for my students would be wonderful.

These teachers were convinced that adding the possibility of at least four weeks of remediation or enrichment to the school year through regular intersession offerings would provide a more consistent and more motivating learning environment for their students. Teachers believed that intersession would prevent children from being "street kids" during the long summer months, would provide a secure place for students to congregate, and would hook them into learning by providing more interactive, integrated learning opportunities in a relaxed environment where testing was not a threat. One of the teachers described the advantages this way:

> We've all got gifts, and one way or another some of our gifts just may not be opened yet. Different learning styles need to be addressed. If I were going to draw it for you I've got a little gingerbread man that really illustrates my philosophy.

She felt that the staff shared a belief that although the regular approach to schooling does not permit each gift to be identified and to flourish, the intersession structure might do so.

Intersession in Provost school was offered for a period of two weeks (of the three-week break) between the regular nine-week terms at a cost of $44 to parents, subsidized by funds from a number of grants and outside sources. The intention of intersession was to use creative approaches to instruction with the aim of increasing the motivation and enthusiasm of students for learning. Examples of creative approaches to teaching include the following. One teacher taught geometry through the vehicle of string art, where students learned to use protractors and other measuring devices in order to create the intricate patterns. Another used the creation of a school version of a "Little Rascals" video to teach communication skills. We were told that at the end of each intersession period, there was a public celebration of learning that included displays and student performances. Teachers told us of the students' delight in the quality of achievement and of their increased motivation for learning.

This was exactly what the teachers had hoped would happen when they moved to the single-track schedule. However, we were also told that unpredictable and decreasing funding available for the intersession program had shifted the teaching responsibilities from certificated teachers to noncertificated teacher aides. This has had the effect of tending to routinize the offerings and reduce teacher enthusiasm about the program. In turn this appears to have led to less teacher interaction about innovative approaches to teaching and learning, reducing the impact on their regular classroom practice. In fact we were curious about what appeared to be a negligible impact on regular classroom teaching and asked specifically about whether the creative approaches tended to carry over. Although there was a sense that there may have been some difference, the general feeling was, "Oh, we can't do that, we don't have time to do all that."

Teachers in Provost school also expressed the concern that not all the students who could benefit from the intersession programs actually attended them. They were discouraged by parents who did not seem to understand the educational benefits of intersession: some tended to accede to students' requests for a vacation; others, it was thought, sent their children because it offered a cheaper and better solution to child care than conventional babysitting services. Despite some waning of enthusiasm for the intersession program during the school's first four years on the single-track calendar, it still attracted over 50% of the student body.

In addition to the implementation of intersession, teachers in Provost School sought other ways to address the learning needs of their students. Two years after the school moved to a single-track schedule, two other innovations were implemented on a small pilot basis: two multi-age, cross-grade classes and the critical thinking program *Philosophy for Children* were introduced. At the same time, to forestall parental concerns, the principal, Ken Fairchild, promised to maintain at least one regular class for each grade level in addition to the multi-age groupings and to implement critical thinking in only some classes. By the next year the innovations had become so popular with both teachers and parents that it was difficult both to maintain the traditional classes and to fulfill parental requests for placement in multi-age, cross-grade groupings. Maintaining the dual emphasis necessitated separating some teachers who had historically worked in team situations, moving some to different grade levels in a traditional class, regrouping others to work in a team approach in the multi-age, cross-grade groupings, and restricting some from implementing *Philosophy for Children.*

Each of these innovations—intersession, new teaching strategies, critical thinking, and multi-age, cross-grade groupings—facilitated more thematic and holistic approaches to instruction and offered teachers increased opportunity to address the learning needs and styles of their students. In some instances this occurred through increased bonding during the smaller intersession classes; in others through the opportunity to have the same students in a multi-age grouping for more than one year.

Teachers in Provost School linked the need for innovation to their personal philosophies that each child could learn. They believed that for these at-risk students it might take more effort and innovation on the part of the teacher to

find appropriate learning strategies and to create supportive learning environments. They clearly thought that the move to a single-track calendar had facilitated both intersession and the other innovations that they had instituted. In fact it was their belief that the multi-age, cross-grade groupings could not have happened at their school without the prior change of calendar.

The teachers we interviewed at Provost Elementary School expressed some frustration that the scope and design of school committees tended to change frequently to the point where many had trouble remembering the name of committees on which they participated. Nevertheless, they were convinced that their site-based governance structure permitted, and even facilitated, the involvement of all teachers in the decisions we described, which they saw as having significant potential to improve student achievement.

Profile of Stephen Lewis Junior High School

Unlike the other two schools, Stephen Lewis Junior High School was a newly constructed facility opened by legislative mandate as the first multitrack school in its jurisdiction. Opened in 1993, the school was built in a community with rapidly changing demographics, generally low socioeconomic status, and associated social problems such as unemployment, crime, and youth violence. Because students had previously been bussed out of their neighborhood to attend junior high school, the school took on a considerable level of importance as a focal point for community activities.

The principal Naomi St. John was appointed a year and a half before the opening of the school and had been released from her educational duties in her previous school for a period of six months to prepare for the opening of the new school. Given that this was the first alternative-calendar school in the district, she argued successfully for a change in the traditional administrative allocation and was permitted to hire five learning leaders—one for each track—to replace the traditional assistant principals designated in the district contract. These learning leaders were teachers who were also appointed before the school opening. After a hard-fought battle by the new principal, they were also given some release time to engage in planning and the development of a shared school philosophy, to assist with teacher hiring, and to oversee specific aspects of the school construction and appointments. For example, one took responsibility for computer installation, another for furniture. The full complement of teachers was also accorded five days of release time from their previous duties to facilitate planning for instruction at the new school and to develop a Foundation Statement. We were told, "As a total staff we have developed a statement through which all of our teaching and learning issues could be filtered. The Foundation Statement is meant to be flexible in the sense that it is continually questioned and reexamined."

Two organizational features reflecting a reconceptualization of teaching and learning grew from this planning and had an obvious impact on the students in Stephen Lewis School. Each track was organized as a learning community based on a number of educational principles. The group of students and teachers assigned to a specific learning community constituted a family cluster that encouraged building strong and sequential pedagogical experiences over the three years that students were in the junior high school. In

each learning community, four teachers, an aide, and the learning leader planned for the overall experiences of the 130-150 students. Although they did not have regularly assigned instructional duties, learning leaders assisted with instruction, worked with students individually, dealt with discipline, and provided key leadership and supportive roles in determining how educational experiences were organized and offered in each track. In order to meet the needs of the students, many of whom were designated as high risk, one teacher assigned to each community had a strong background in special education, whereas the others brought strengths in various subject areas.

The students' school day was organized in a series of flexible groupings: some were grade-level groupings and others multi-age or cross-grade; some were ability groups (primarily for skill acquisition), and others were cross-ability heterogeneous groups (for cooperative learning or project-related activities). Students were sometimes grouped in large, combined classes with one teacher, and at other times worked in small groups or one-on-one with a teacher. In the learning community, students were taught the core academic subjects, optional elective classes, and participated in a teacher advisory program.

Despite the school's name, Stephen Lewis Junior High School, the approach to instruction was both thematic and integrated, really more a middle school approach than the discretely organized curriculum of a traditional junior high school. In all the school activities the emphasis was on students taking increasing responsibility for their own learning, including peer- and self-assessment. This is reflected in part of the Students' Mission Statement, which reads "Everyone is equal and able to discover themselves through trust and respect and voicing their opinions. To improve their academic and social skills, students are also encouraged to cooperate with their peers more often." As each learning period ended, a celebration of learning was held during which students invited their parents to accompany them to school to talk with teachers about their achievements and to attend student performances and presentations.

The second organizational feature that had an impact on student learning experiences was the "rainbow track" unit that served all the rotating tracks with three-week units of such activities as art, music, computing, drama, physical education, home economics, and so forth. When students were engaged in these Career and Technological Science activities, the teachers of their learning community used this common planning time for meetings and discussion of curricular issues.

Curriculum planning in the learning community was only one area of teacher responsibility and leadership in the school. The overall philosophy of Stephen Lewis School was to empower teachers, parents, and students. This supported a sense of being part of the school as a whole, as well as of belonging to a smaller internal learning community. Weekly staff meetings were held; each month three focused directly on matters related to teaching and learning, whereas the fourth was for business and information purposes. There was an additional complex system of committees with representation from each track, all of which discussed and recommended policy relating to different aspects of school life: governance, assessment and reporting, professional development,

and curriculum. Each committee chose two leaders to ensure that no matter what group was off track, there would be a leader present at meetings. Although this committee structure ensured voice and representation, it was also time-consuming and somewhat cumbersome. Hence although it was perceived by teachers to be one of the strengths of the school, it was also a source of major frustration requiring a change of mindset of the part of the teachers.

Overall, the year-round schedule of Stephen Lewis School remained very much in the background of the daily life of students and teachers; nevertheless, there was a strong sense that this structure facilitated and enhanced the opportunity to offer a reconceptualized curriculum to students. In fact although many changes might have occurred in a traditional schedule, in this district the structure of learning leaders could not have existed before the multitrack schedule was instituted. With a traditional principal and assistant principal structure, many of the curricular changes, as well as the degree of teacher leadership, would have been constrained.

Analysis and Discussion

Although this brief glimpse of some of the innovative structures and thinking in these three schools cannot begin to convey a complete impression of the complexities of the change processes in which participants engaged, we have tried to capture some of the highlights. From our analysis of the themes and patterns across the three vignettes, we identified the following six issues for discussion: teacher planning for instruction, formal and informal talk about teaching and learning, team-teaching and organizing instruction, programmatic change based on philosophies of education, principal support for innovation, and a culture that supports innovation.

Teacher Planning for Instruction

In these schools, as in many other year-round schools we have studied (Shields & Oberg, in press), teachers were clear that the changed schedule had an impact on how they thought about and planned for instruction. In fact at Stephen Lewis School, when outsiders asked questions focusing on the YR structure, teachers were quick to say that the year-round calendar was a non-issue, and that the real innovations were in how they conceptualized the pedagogy. One of the school principals we interviewed was able to summarize succinctly what the teachers had repeatedly stated,

> They'll take a vacation the first week, and the second week maybe do what they have to, but the third week, they're planning. They have their kids in their minds. You don't know your kids over the summer in a traditional school. You've got your kids on your mind, you're planning for them. I think we get all kinds of planning done for classes on year-round that you will never see in a traditional. It just happens.

Teachers told us that they no longer used the textbook as their instructional organizer, but that they looked at the calendar and planned in three-, six-, nine-, or 12-week units in order to ensure that students acquired the main concepts and that they finished a unit before going off-track. One described an approach in some detail: "Everyone would get together, decide who was teaching what math class, and what kids would go together, what kids already had what

teacher. It was a ton of work. But it worked really well." Teachers recognized that although they might not have spent as long on a particular topic as they might have wished, the organization of their instructional time was more balanced. Further, because teachers did not have to engage in all their comprehensive planning, as traditional school teachers do, in the summer before actually meeting their classes, much more of their planning was done with the needs of specific students in mind.

Although the three-week breaks between track time were definitely perceived as needed vacation time that helped in many instances to prevent or reduce teacher burnout, teachers also informed us that some of this time was used in specific thinking and planning for the next instructional block. New teachers reported that this was of particular assistance to them, "Each track it seems to get better and better and my discipline gets better and my lessons get better because I try something new." For all teachers the calendar facilitated the teacher talk identified above, as teachers returning from a three-week break were likely to share new materials and ideas with those who were still on track.

Teacher Talk about Teaching and Learning

The opportunity for teachers to plan at regular intervals during the academic year and to take more frequent breaks seemed to foster a culture in which the level of enthusiasm and discussion for educational innovation was high. Thus teachers in all three schools emphasized the importance of their frequent interactions around teaching and learning. As one put it, "We go off together, we think things through, and we talk to each other about our new ideas. There's a lot more rejuvenation happening." Some of the conversations involved sharing materials; others were to ensure smooth transitions as teachers rotated in and out of spaces in the school; still others permitted more regular discussion about educational philosophy and concepts of curriculum and instruction.

In Mount Sinai School one of the first things we were told was how grateful teachers were that the principal had found innovative ways to ensure common planning time across grade levels in order to facilitate the conversation and sharing about teaching and learning. In Stephen Lewis this was facilitated by teachers' daily common planning times and by the provision of a workroom in each track's space. In Provost School the regrouping of teachers into differently configured instructional teams offered similar opportunities for informal interaction.

In addition to informal teacher talk, we also found evidence of a high degree of formalized discussion about pedagogy in all three schools. In fact common planning time and frequent informal discussions were not adequate in and of themselves, and all three schools found ways to provide additional formal structures through which teachers could interact about curricular issues. In all cases formal committee structures were established that ensured the interaction of teachers across groups and tracks and that provided a more holistic and school-wide approach rather than just a focus on the team or grade level.

Organization of Instruction

When many people are first introduced to the concept of year-round schooling, they imagine that the logistics involved in changing the schedule will require so much time and energy that no other changes can be considered simul-

taneously. It may seem surprising that the teachers in these three schools did not permit the rotation of the schedule to prevent or inhibit their opportunities not only to plan together, but to engage in team-teaching and interdisciplinary and thematic instruction. In fact the new structures appeared to liberate rather than to constrain reconceptualization of the curriculum and instruction even when this required additional structural change.

In these schools the reconceptualization often involved flexible and changing ways of grouping students and of assigning teachers and students to meet student needs better. Hence at Provost school teachers who chose to teach at intersession did not teach at the same grade level as their regular assignment in order to ensure that they developed new, interactive materials, which in turn might have an impact on their regular classroom instruction. The institution of such innovations as multi-age, cross-grade grouping, a grade 6 middle school concept, and learning communities demonstrates that in these schools there was constant reexamination of both the organization for instruction and the conceptualization of teaching and learning.

Programmatic Change Based on Philosophies of Education

A fairly typical response by schools wishing to implement change to address student needs is the tendency to institute a number of discrete programs without prior examination of how they fit with programs currently in place or how they relate to a shared vision or overall philosophical base for school initiatives (Coleman & LaRocque, 1990; Wildavski, 1979). In these three schools programs were more likely to be developed as a result of schoolwide discussion and consensus and to emerge from and extend the shared philosophy of teaching and learning. For example, in Mount Sinai the removal of a wall and the implementation of a team-taught grade 6 program were carried out in order to permit the grade 6 students to enjoy the benefits of the middle school philosophy and schedule that was being instituted throughout the district. In Provost School the teachers fought for the single-track schedule in order to provide the intersession program because, as they each informed us, their particular student body needed the continuity and the flexibility of instructional strategies afforded by such a program. In Stephen Lewis we have seen that before the school opened, everything—from the organization of the students to the daily schedule and the assignment of teachers to learning communities—was planned to support the philosophy of caring, relevance, and student choice.

Principal Support for Innovation

Although many of the initiatives we describe related directly to teacher planning, discussion, and organization, in these schools they were supported and facilitated by the attitudes and actions of the principals. Repeatedly our respondents told us that there was something special about their principal, and that although they had worked in other schools for other principals they had rarely found one who was as open, supportive, and empowering. "I'm amazed at the support here ... you're listened to and I feel I have more support."

The need to empower participants to make decisions regarding change was evidenced by Dr. Shipley of Mount Sinai School who talked about a current proposal. She indicated that she had raised the issue, had not received a *No*

from the teachers, and was waiting to see how their responses would develop. At the same time, she was not just waiting for the teachers to make the decision, but was encouraging them by giving them additional information to be examined at the next staff meeting. She believed that the information would help them to understand the options and would constitute the basis for informed discussion. This approach to change—planting ideas, sharing information, being open to alternatives—is indicative of the approach of the three principals in this study. Teachers did not see that the ideas for change were top-down, but that the principals' suggestions formed part of the pool for discussion and consideration.

Culture That Supports Innovation

It became apparent that although these principals were leaders with strong personal visions of education and numerous ideas for innovation, they had created a culture where teachers too were willing to put forward their ideas without fear of ridicule or repercussion. In Provost School teachers had difficulty identifying the source of the experiment to implement multi-age and cross-grade groupings. There had been so much discussion about different strategies to meet student needs that the decision to implement this approach seemed to emerge from this more diffuse environment of experimentation. This example is characteristic of what we found at the other two schools as well.

Although it is difficult to describe in concrete terms what we call a culture supportive of change, the following appear to be important aspects: regular interaction and discussion of conceptual issues, frequent revisitation of school philosophy and vision, willingness to experiment, opportunity for change initiatives to emerge from any source or direction, and supportive leadership. In addition, we have found that the teachers demonstrated a remarkable personal willingness not only to suggest change, but also to participate in or to lead it. Moreover, the innovations these teachers were willing to attempt went well beyond structural tinkering with programs and affected the conceptual core of their practice.

Implications and Conclusion

Much of the year-round school literature concludes that where YRS appears to have had a positive impact on student achievement it has been accompanied by other changes (Goren & Carriedo, 1986; Hough et al., 1990; White, 1992). In this article we describe some related innovations in three schools and show how a reconceptualization of practice has in turn modified the learning environment of these schools. In addition, some literature focuses on the effects of the calendar change to YRS in terms of its impact on teachers, administrators, and families with schoolchildren (Alkin, 1993; Baker, 1990; Brekke, 1983; Christie, 1989; Hazelton et al., 1992; Perry, 1991; Zykowski et al., 1991). Despite this relatively large body of literature that emphasizes preimplementation concerns, most authors stress that these quickly tend to dissipate following the implementation of the YRS calendar. In the three schools described in this article we found that the calendar change has been very much a nonissue except insofar as respondents perceived it to have facilitated other changes. This is in startling contrast to most of the literature in which a change to YRS

has been found to constitute a major and almost overwhelming shift of focus (Kirman, 1991; Koki, 1992; Rasberry, 1994; Shields & LaRocque, 1997).

We posit that this attitude may be due to a failure to distinguish between changes that are structural in nature and those that are conceptual. The starting point for this article was a discussion of three schools that had implemented a change from a traditional to a year-round calendar. Typically, a structural change of this magnitude, requiring new teaching assignments, redistribution of resources, community consultation, and alterations in school governance, is considered a second-order change. We have challenged this notion by demonstrating that in these three schools the structural change alone may be better represented as a first-order change and that the pedagogical reconceptualization triggered by the new calendar is the true second-order change.

The educators in these three schools recognized that the year-round schedule was a structural modification they could exploit to further their educational philosophy and to support the additional innovations they wished to implement. In fact all three schools are good examples of organizations in which the structure is relatively fluid and in which numerous alterations are made on an ongoing basis. In every instance our teacher respondents emphasized the work and challenges associated with instructional innovations and advantages and rarely, unless asked directly, spoke of their school calendar.

We found no evidence in any of these three schools of an intentional emphasis on capacity-building, that is, a focus on "the motivation, skill and resources that are needed to perform at a high level" (Darling-Hammond, 1998, p. 72). In the two elementary schools, teachers did, however, take advantage of the YRS calendar, with its more regular breaks, to begin to discuss issues of practice, as well as some of their underlying beliefs and assumptions. In Stephen Lewis Junior High School considerable discussion about teaching and learning occurred before the school opening. However, recall that in this instance, as in Mount Sinai Elementary School, the calendar change had been mandated by the district. Neither clear vision nor a culture for change and innovation had been present before the decision to implement YRS. In Provost School teachers believed that offering intersession might help some of their at-risk students; they did not plan at the outset to add critical thinking or multi-age, cross-grade groupings.

Some might assert that if the culture and vision for transformation were not present at the outset, the changes demonstrated by these three schools were merely serendipitous and cannot be attributed to the revised calendar. The issue is definitely complex and the changes interrelated. However, we find support for the notion that a new pattern or structure may act as a catalyst or trigger for additional change. Perhaps in the case of year-round schooling increased communication between school and community (required to coordinate new schedules and calendars) inspires additional support for the school. Perhaps the increased interaction, necessitated as teachers share physical space or coordinate team-teaching or intersession activities, reduces teacher isolation and increases their sense of motivation and empowerment. Perhaps it is simply that having to cope with the deceptively simple, but politically volatile, calendar change promotes an increased sense of power and professionalism on the

part of teachers. We are currently beginning to explore these and other possible explanations.

Regardless of the explanation, educators in these three schools would agree that the new school-year organization provided the impetus for reconceptualizing teaching and learning, as well as for increased capacity-building in each school. Thus it is our hope that this article will be helpful to practitioners and policy-makers—both those considering or working within a YRS calendar and those dealing with other types of innovations. Nathan and Myatt (1998), in their discussion of capacity-building, emphasize the need for "disseminating promising practices that emerge from diverse schools" (p. 130). Here we suggest that expanding the list of promising practices to include some unlikely and apparently simple structural changes may be a worthwhile endeavor.

The complexity of educational change indicates that it may not be necessary to prioritize reculturing and restructuring, but rather to begin wherever a change is occurring and to use it as a trigger for additional changes. Wheatley (1993) suggests that one of the new leadership tasks is to understand the underlying patterns in our organizations, "to seek out surprises, relishing the unpredictable when it finally decides to reveal itself to us" (p. 142). "The dance of this universe," Wheatley says, "extends to all relationships we have. Knowing the steps ahead of time is not important, being willing to engage with the music and move freely onto the dance floor is what's key" (pp. 142-143).

The implementation of year-round schooling seems to be surprisingly like the dance in which the steps, sometimes even the tune and rhythm, are unknown at the outset. We are increasingly convinced that the starting point is less important than the ability and willingness of participants to make new conceptual links to their educational practice. In turn, these links hold the potential for a change initiative to have a positive impact on the learning environment of students.

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Citizenship Education for Adult Immigrants: Changes Over the Last Ten Years

During the past few years Citizenship and Immigration Canada has significantly changed the citizenship process by modifying the application procedure, eliminating many citizenship judge positions, introducing a multiple-choice test, and restructuring the citizenship ceremony itself. In order to assess the impact of these changes on citizenship education, we located and contacted citizenship programs across the country. For comparison purposes we followed much the same procedure used in a study conducted for the Secretary of State 10 years ago. The current study identified far fewer programs available to adult immigrants than in the past. Furthermore, since the last study the scope of the content in citizenship education programs has remained essentially unchanged in some instances or has been reduced in others. Recommendations are made for policy-makers.

Depuis quelques années, Citoyenneté et Immigration Canada a modifié considérablement le processus d'obtention de la citoyenneté en apportant des changements à la procédure de demande, en éliminant plusieurs postes de juges de la citoyenneté, en y ajoutant une évaluation à choix multiples et en restructurant la cérémonie de remise des certificats de citoyenneté. Dans le but d'évaluer l'impact de ces changements sur l'éducation civique, nous avons identifié des programmes de la citoyenneté de par le pays et en avons contacté les responsables. Pour faciliter la comparaison, nous avons suivi de près la même procédure qui a été employée lors d'une étude entreprise pour le Secrétaire d'État il y a 10 ans. Notre étude a noté que le nombre de programmes mis à la disposition des immigrants adultes a beaucoup diminué. De plus, depuis la dernière étude à ce sujet, l'envergure du contenu des programmes d'éducation civique a demeuré essentiellement inchangée dans certains cas, et a diminué dans d'autres. Nous offrons des recommandations aux initiateurs de programme.

Although the federal government and several provinces have funded citizenship programs for newcomers for a long time, there has been little research on the efficacy of these programs; furthermore, most research into citizenship education is focused on school-aged children (e.g., Sears & Hughes, 1996). Although clearly citizenship education for Canadian-born children is of vital importance, it is also of real consequence for adult immigrants who have

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grown up with a different set of assumptions, a different history, and a different cultural reality than Canadian-born individuals. Citizenship education should provide a window on the combination of political, economic, and social factors that have shaped Canada and its people, particularly as these factors have a critical impact on immigrants' lives.

In a comprehensive review of the federal government's role in citizenship education, Joshee (1996) points out that citizenship education for newcomers, although defined as a means of helping immigrants to participate fully in Canadian society, is instead "increasingly associated with the acquisition of some English or French and meeting the legal requirements of naturalization" (p. 108). This was evident in strategies underlying the now-defunct federal government Citizenship Instruction and Language Training (CILT) grants: for many years the Department of the Secretary of State provided funding to English as a second language (ESL) programs on the understanding that both language and citizenship concepts would be developed.

However, in a census of ESL and English-language citizenship programs in Canada, Derwing and Munro (1987) found that a small minority of ESL programs placed any significant emphasis on Canadian content, much less on citizenship issues. Programs designed specifically to impart citizenship concepts were for the most part geared to helping students through the court hearing. In fact 86% of coordinators surveyed at that time stated that preparing newcomers for the hearing was the main objective of their programs, 26% of respondents mentioned improving the students' knowledge of Canada, and only 12% reported encouraging students to participate in Canadian society.

Thus Joshee's (1996) claim is upheld, at least to the point when the federal government introduced LINC programs (Language Instruction for Newcomers to Canada) in 1992. It is the explicit policy of LINC that adult immigrant students not only receive language instruction, but that the content of such instruction be Canadian-based, and that LINC curricula encourage active participation in the Canadian way of life. Nonetheless, as Courchêne (1996) and Sauvé (1996a) have pointed out, there has been little in the way of support for instructors in ESL programs to adapt their teaching to the dictum of LINC, especially given the complexities of teaching across cultures. Most ESL programs, however, have made some changes to their offerings in order to comply with the new funding requirements.

In response to a perceived increase in interest in Canadian content in ESL, materials developers have produced a number of new textbooks in recent years (Bates, 1990; Berish & Thibaudeau, 1993; Brod & Frankel, 1993; Cameron & Derwing, 1996; Sauvé, 1996b). In addition, a number of initiatives have been undertaken in the last decade to improve the state of citizenship-specific education with the goal of broadening its earlier aims, which were limited to meeting the requirements of the court hearing.

The Derwing and Munro (1987) census was part of an initiative of the Citizenship Instruction Review Project (CIRP) under the auspices of the Corporate Policy Branch of the Secretary of State. CIRP entailed not only a detailed survey of existing citizenship instruction programs and an accompanying directory, but also the development of a handbook entitled *More of a Welcome Than a Test* (Pratt, 1988). As a part of the project, Secretary of State also funded

three citizenship instructor conferences and provided support for the establishment of the provincial newsletters *Citizenship Alberta* and *Citizenship BC*. The Ontario Ministry of Citizenship was also active in the late 1980s. One of its accomplishments was to produce a special issue of *TESL Talk* on citizenship education (vol. 19, 1989). While this activity was occurring in adult citizenship education, emphasis in adult ESL programs was moving into a phase of participatory learning, and a number of programs arose in which students' engagement in Canadian society was a principal goal of the programming (e.g., Hernandez, 1989; Mohamid, 1989). Citizenship education for adult immigrants seemed to be coming into its own.

For its part, Citizenship and Immigration Canada (CIC) developed a new version of *A Look at Canada* (Government of Canada, 1995), the document provided by the federal government to every applicant for Canadian citizenship. The booklet contains short descriptions of the regions, each consisting of a few paragraphs (written in basic language) on people, the economy, geography, and climate. There is also a section on Aboriginal peoples from a historical perspective. Canadian government, lawmaking, electoral procedures, and rights and responsibilities of citizenship are the topics of the remaining sections (the full text can be found on the CIC website). In the document CIC defines Canadian citizenship as "being a part of Canada."

Given the changes outlined above, and in particular the outcome of CIRP, we might have expected to see important changes in citizenship education. The purpose of the present study, then, was to assess the current state of adult citizenship programs and some large ESL programs from across the country to determine whether the developments noted above have indeed resulted in significant changes. Comparisons are made with the 1987 survey; the relative quality of the programs is discussed in the light of the nature of their content and whether they address CIC's stated goal: to help newcomers become "a part of Canada."

Methodology

Locating Programs

We telephoned the agencies that provided citizenship programs in 1987 to inquire whether they still offered citizenship courses and whether they were aware of any other citizenship programs in their area. We also contacted organizations that offer aid to immigrants from a list provided by the Department of Canadian Heritage. Finally, we interviewed coordinators from large ESL programs in Ontario, British Columbia, and Alberta to inquire about citizenship classes in their area and Canadian content offerings in their own programs. A few organizations offering citizenship classes may have been missed, but we made every attempt to identify all the programs in English-speaking Canada in order to make direct comparisons with the 1987 survey.

Data were collected in a three-step process: first, telephone contact was made; second, a six-page questionnaire was mailed; and third, a follow-up telephone interview was conducted. This method was found to be most efficient in that program coordinators were given an opportunity to think about the questions and collect some of the information in advance of the interview. The interview provided them with an opportunity to express their opinions

and to give elaborated responses that they might not have been willing to formulate in writing because of time constraints.

Questionnaires

We used the questionnaire to elicit course scheduling information, student profiles, an outline of course content, lists of materials and equipment, and staff profiles. In addition, we included some open-ended questions to elicit the coordinators' assessment of the changes to the citizenship process. A slightly different questionnaire administered to the ESL programs focused on the use of Canadian content, citizenship-specific content, and reactions to changes in the citizenship process.

Telephone Interviews

Each telephone interview took approximately 30 to 45 minutes. A small minority of respondents chose to complete the questionnaire and mail it back. Whenever possible these individuals were contacted later to clarify and expand on their original answers. There was an 86% response rate overall.

Results

The data collected from the questionnaires and interviews were tabulated, analyzed, and compared with the findings of the 1987 study.

Program Profiles

Types of programs. We identified 41 separate organizations that offer citizenship courses. Of the programs contacted 95% provide classes specifically for preparation for the citizenship test, and 5% offer ESL courses with a heavy emphasis on citizenship issues. In the original survey more than double the number of citizenship-specific programs were located (89) and an additional 15 ESL programs with a heavy emphasis on citizenship issues were also identified. We believe that this disparity reflects a genuine decline in the number of classes available. For example, we were unable to locate any citizenship programs in the Maritimes (whereas 4 were identified in 1987). Several agencies reported that they offered citizenship classes in the past but no longer do so for a variety of reasons, including funding cuts and changes to the court requirements. Many organizations that used to hold citizenship classes now give individuals a copy of *A Look at Canada* and counsel them to study it on their own. Several agencies have compiled lists of multiple-choice questions and answers based on the content of *A Look at Canada,* which they give to applicants in lieu of a citizenship preparation course.

Hours of instruction. The number of hours of instruction per week varies from 1 to 14, with an average of 3 hours. Course length also varies considerably, from 1 to 41 weeks, with a national average of 12 weeks. The figures for the longer courses may be somewhat misleading in that they tend to be courses with continuous intake. Because students are accepted over the duration of the course, the number of total class hours may not reflect the amount of time an individual spends studying citizenship. If the continuous courses are excluded, the weeks of instruction range from 1 to 12, with an average of 6 weeks. This is probably a more accurate reflection of the amount of citizenship training individuals receive. The 1987 survey found a great deal of variation in instruction

time as well. At that time classes ranged from 2 to 90 hours of instruction, with an average of 24.5 hours, including the courses with continuous intake.

Publicity. Organizations have continued to rely on similar methods of publicity over the past 10 years. Like the 1987 census, the current study found word-of-mouth, flyers, posters displayed at citizenship courts, and networking with other agencies to be the most common practices.

Fifty-six percent of respondents stated that the citizenship courts distributed information about their programs. However, some coordinators complained that it is now difficult for individuals to get information from the citizenship offices because there are no direct phone numbers. In many cases there is no government citizenship office in the city where the program is offered.

When respondents were asked to list the reasons why students attend their programs, quality, cost, bilingual classes, convenient times, and locations were common responses. Forty-nine percent of respondents stated that theirs was the only class available or that there were limited choices. This is especially true in smaller centers.

Bilingual programs. Of the 46% of programs that offer bilingual classes (classes in English and the students' native language), a subset of 79% target a specific cultural or linguistic group. In addition, one program offers bilingual Mandarin and Vietnamese classes designed specifically for students who have already failed the citizenship test. Of the bilingual classes 61% are offered in Chinese, 13% in Punjabi, and 9% in Vietnamese. Classes are also offered in Hindi, Bengali, Portuguese, and Korean. All these programs have bilingual instructors rather than interpreters. In 29% of bilingual programs over three quarters of the instruction time is in the students' first language. Sixty-five percent of the programs report that more than half the class time is conducted in the students' first language. This finding is similar to that reported in the 1987 survey. The heavy emphasis on the students' first language suggests that they have extremely limited English proficiency.

Funding. Sources of funding vary across the provinces, but there is a definite downward trend in overall funding. In BC 50% of the programs charge tuition, 20% receive no funding, 20% are funded through private sources, and 10% receive funding through the Ministry of Multiculturalism. In Alberta 40% of the programs receive no funding, 60% charge tuition, and 20% have some government funding (i.e., one third of the programs both charge tuition and receive some government funding). The single program located in Saskatchewan is supported by funding to other programs from Canadian Heritage. In Manitoba 50% of the programs receive funding through tuition and 50% are funded by Canadian Heritage. Most programs surveyed are located in Ontario, of which 14% report that there is no funding, 9% collect tuition, 19% receive federal government funding, and 41% are supported by the provincial school boards. Another 36% receive other provincial funding. Thirty-four percent of the programs surveyed reported losing a significant portion of their funding in the last two years. At the time of the survey, tuition ranged from $5.00 to $60.00; most programs charged less than $30.00 to cover photocopying and other miscellaneous costs. During the telephone interviews it was apparent that there was a great deal of upheaval and distress for pro-

grams in Ontario and that significant changes in the sources of funding and the programs were expected in the near future.

Student Profiles

Demographic information. Coordinators indicated that programs collect less information about their students than 10 years ago. Respondents often reported that they have a "feel" for their students and that relevant information is obtained informally in class. Of the programs that collect information 28% use it for class planning and 21% for student placement. Other uses include providing statistics for a governing board, providing instructors with background information, and providing funders with required information.

Length of time in Canada. Eighty-one percent of the respondents reported that most of their students had lived in Canada between 2 and 5 years. From the telephone interviews it appears that most students apply for citizenship and take the test as soon as they are eligible (i.e., as soon as they have completed their three years' residency in Canada).

English proficiency/literacy/formal education. Respondents were asked to estimate the English proficiency of their students. The average percentages are 11% for advanced, 30% for intermediate, 23% for high beginner, and 36% for low beginner. The estimated number of students who have difficulty reading and writing in English is 48%, with a range from 5% to 100%. The levels of English proficiency in citizenship classes appear to have remained relatively stable. In the 1987 survey it was estimated that at least 60% of students were at the beginner level.

Over half the programs were unable to estimate their students' level of education. The estimates put forward by the remaining programs are as follows: 0-6 years, 38%; 7-9 years, 24%; 10-13 years, 28%; postsecondary, 10%.

Eighty-five percent of respondents reported that their classes consist of mixed proficiency levels, 12% reported some mixed classes, and 2% reported that low beginners are separated from the rest.

Course Content

Course objectives. Eighty percent of respondents stated that the main objective of their citizenship preparation course was to help students pass the citizenship test, 23% cited the development of knowledge about Canada as a primary objective, 18% listed integration and participation as a goal, and 5% reported that English language improvement is a primary objective.

When asked about secondary objectives, 22% stated that they had none, that they were focused solely on helping students pass the exam. Participation in Canadian society was listed by 20% of the respondents, as was helping the students acquire knowledge about Canada. Both language improvement and passing the test were cited by 10% of the programs. These findings suggest that the objectives of the programs have not changed significantly over the past 10 years.

Course topics. Representatives from all the programs surveyed reported teaching the topics covered in *A Look at Canada*, namely, geography, history, the electoral process, levels of government, and rights and responsibilities of Canadian citizens. A few also stated that they attempt to supplement the information in *A Look at Canada* with localized and current information. These

individuals often felt that this supplemental information was essential to help their students to become participating, integrated Canadian citizens, even though local information cannot be tested in the nationally-oriented citizenship test.

Class activities. We asked coordinators how citizenship information is presented in the classroom. Formal presentation of information by the teacher remains, by far, the most common: 93% of respondents reported that this takes place frequently or every class. Class discussion and practice for the test are also common activities, with over 70% of coordinators stating that they take place frequently or every class. Reading takes place at least sometimes in 70% of the classes. From Table 1 it is evident that few other activities are employed in the citizenship classroom. When asked whether guest speakers are invited to the courses, 59% of coordinators stated that they seldom, if ever, have visitors. Of the programs that reported guest speakers, citizenship officers and politicians are generally invited to talk with the students. During the telephone interviews it became clear that although several respondents would like to incorporate other activities, they feel that a lack of both time and resources prevents them from doing so.

Course evaluation. Respondents were asked to list the methods used to evaluate the success of their course. As with the first survey, the majority (51%) stated that they consider their course a success if the students obtain citizenship. In a related form of evaluation, 12% of programs administer a mock exam at the end of their course and appraise the success of the course by those results. Twenty-seven percent of programs use informal feedback as their only method of evaluation. Attendance is taken into consideration in 20% of the programs, and 15% have their students fill out evaluation forms. Two coordinators in small centers stated that they consider students' involvement in the community when evaluating the success of their course.

Materials and equipment. By far the most commonly used resource material is *A Look at Canada,* with 71% of programs making use of it either several times per course or every class. Printed handouts developed in-house (largely question-and-answer) are also used frequently, with 68% of respondents stating

Table 1
Frequency of Selected Class Activities (Percentages)

Activity	*Never*	*Seldom*	*Sometimes*	*Often*	*Every class*
Lecture	0	2	5	13	80
Games	37	10	35	8	10
Field trips	65	10	23	2	0
Film/slide pres.	43	18	21	18	0
Small group work	33	13	18	23	13
Readings	28	2	30	20	20
Role plays	59	15	15	8	3
Class discussions	10	2	18	25	45
Writing activities	67	18	13	0	2
Practice for test	8	2	15	25	50

that they use them either several times per course or every class. Several respondents also mentioned using pictures or magazine photos, newspapers, and provincial publications.

In terms of equipment use, the results are similar to those of the survey 10 years ago. Every program reported using photocopiers extensively. Most programs never use video or audiotapes, nor were these mentioned in the discussion of classroom activities. All in all, it would appear that media presentations of any kind are rare. Although the use of computers was reported by 31% of the program respondents, most use them solely for word processing (e.g., creating handouts) rather than in the classroom.

Although respondents praised the new version of *A Look at Canada* as an improvement over the previous publications of Citizenship and Immigration, several individuals expressed disappointment that publications such as the *Ontario Times* are no longer available because of funding cuts. Also, several suggested that visual aids designed for the citizenship classroom, such as short videotapes, would be useful.

Federal government initiatives. Canadian Heritage has created a series of materials under the Canadian Participation Initiative (CPI). These resources are essentially citizenship instruction materials that deal with issues such as family life in Canada, the social welfare system, employment issues, human rights, rights and responsibilities of citizens, and the political system. Although the intent is to impart information, the pedagogical approach of the CPI is participatory in nature, and the complexities of the political and social fabric of Canadian life are not ignored. To assess the impact of the CPI resources, we asked coordinators if they were aware of any federal government initiatives on citizenship education in the past two years. Of the programs contacted 80% reported being unaware of any government initiatives, 5% had used the CPI binders and found them useful, 10% believed their programs owned a copy or that their ESL programs might use it, and 5% were aware that the materials existed but had not seen any of the binders. (It was not possible for us to determine whether distribution problems lie with the producers of the material or in the agencies themselves. One coordinator mentioned that the distribution of materials in her own organization is not systematic, and that often teachers are unaware of some of the available resources that have been sent directly to the agency.)

Staff Training and Evaluation

Staff requirements. The monetary resources of individual programs dictate the extent to which agencies are able to require certain qualifications of their staff. Of the programs that we surveyed 32% require professional background in teaching English as a second language (TESL), and 29% prefer it. Thirty-eight percent require ESL teaching experience and 44% prefer it; 24% do not take either into consideration. In the programs that existed 10 years ago 40% required TESL training and 40% preferred it; and 39% required ESL teaching experience and 17% preferred it. In the programs that receive little or no external funding the requirements are often based on the personal attributes of the teacher. Examples of the preferred characteristics are an open mind, a

willingness to teach in the evenings, an interest in the area, and personal experience with the citizenship process.

The amount of training that is provided to the staff also fluctuates depending on the resources available to the individual programs. Forty-one percent of programs provide either no additional training or only informal on-the-job training. Thirty-one percent of respondents mentioned sending their staff to workshops, seminars, or conferences sponsored by others. This figure is considerably lower than the 58% reported in 1987. As was the case in 1987 21% of programs sponsor sessions for their staff; in some cases this consists solely of a general volunteer orientation. Five percent of agencies indicated that there is no need to provide additional training because they are able to hire highly qualified staff; an additional 5% stated that they send their teachers for a one-on-one orientation with an officer of the citizenship court.

Staff evaluation. The most common form of teacher evaluation is in-class observations by coordinators; 54% percent of programs conduct this form of evaluation compared with 73% 10 years ago. The remaining methods of evaluation are similar to those reported in the previous study. Thirty-nine percent have the students fill out an evaluation form, 12% have the teachers complete a self-evaluation, and 12% of programs have in-class observations by other instructors. Finally, 22% of respondents stated that no teacher evaluations occur or that only informal evaluation is carried out.

Testing and Application Procedure

Contact with citizenship officials. Respondents were asked how often they come into contact with judges, citizenship officers, and provincial government representatives. It would seem that there is little contact on the whole. In 1987 over 70% of program coordinators reported that they were in touch with judges or citizenship officers at least occasionally; now those percentages are 30% for judges and 58% for citizenship officers (many judges' contracts had expired at the time of the survey).

A concern voiced by many coordinators has to do with the lack of personal contact in the citizenship process. Several individuals stated that the citizenship application forms are difficult to understand (not only for the immigrants, but also for people working in immigrant-serving agencies). Previously court officers assisted applicants, but in many locations this no longer occurs because applications are handled by mail. One coordinator noted that if there were a short interview to check the application form, the literacy level of the applicant could be assessed. She suggested that if it was clear that the applicant had literacy problems, he or she could be excused from the written test and an oral interview could be held instead. Such a procedure would be preferable to the current practice of having all applicants write the exam, literate or not, and subsequently granting interviews to those who fail.

Multiple-choice versus short-answer. Respondents were also asked to estimate the percentage of their students who would have difficulty with multiple-choice tests versus fill-in-the-blank or short-answer tests. Coordinators estimated that 45% of the students would have difficulty writing a multiple-choice exam because of the confusing format. Although several people expressed concerns over the low literacy levels of their students and the

ambiguity of multiple-choice questions, the general feeling was that fill-in-the-blank or short-answer tests would be more difficult for students than multiple-choice.

Written test versus oral interview. Participants were also asked to give their opinions regarding the process of becoming a citizen, particularly the change from the oral interview to a written multiple-choice test. Most program coordinators expressed concern with the current process, citing the inflexibility and superficial nature of the test. In contrast with respondents from unilingual programs, however, most bilingual program respondents preferred the multiple-choice test over the oral interview, stating that it is more objective, cost-efficient, and quicker. One of the coordinators reported that the written test was easier for her students because they had received an education in English (in Hong Kong) and could therefore read and write in English, but had difficulty speaking. The bilingual classes tend to focus on rote memorization of the answers to the 200 possible questions at the back of the *A Look at Canada* booklet. One bilingual program does not use *A Look at Canada* or any other material; instead a bilingual list of the 200 questions and answers is used exclusively. The respondent from this program felt that this practice enhanced the students' likelihood of recognizing key words in the written test.

A majority of the coordinators expressed concern that the test is unfair to individuals who have limited English literacy; even many of those who prefer the test to the interview agree with this sentiment. Although individuals who fail the written test are subsequently interviewed, many respondents felt that having to write and fail the test first is a degrading experience. Doubt over the relevance of the test material was also expressed. Respondents questioned how learning the information on the test would aid new Canadians to become integrated, participating citizens. Several felt that people born in Canada would not know the information that is tested (this intuition was verified in a national Angus Reid poll in the fall of 1997). According to one coordinator, her students feel the test is the government's way of "making" them fail. Another coordinator stated that the introduction of the test had diminished the quality of his class. Previously he was able to explore issues in-depth, discussing why his students wanted to become Canadians and what it meant to be a Canadian citizen. Now he finds that his students are extremely anxious about the test and want only the answers to the questions. Many other respondents reported similar experiences and stated that their students want to ensure that they are not wasting the $200 application fee to go through the citizenship process.

Most respondents felt that all stages of the current procedure are highly depersonalized, from the mail-in application to the actual testing. Several individuals also expressed dismay over the fact that many judges' contracts are not being renewed and that they are no longer officiating at many citizenship ceremonies.

ESL Provider Responses

Half the ESL program coordinators surveyed reported that they place a stronger emphasis on Canadian content that they did prior to LINC; a quarter of the programs were not in existence before LINC, and the remainder said that their focus has not changed. Four fifths of coordinators stated that they prefer

to use Canadian materials whenever possible; however, they were more likely to use commercially available texts than government-produced publications. Only one program coordinator was confident that the CPI material was being used in classrooms. Most respondents had heard about the changes to the citizenship process; most were not in favor of replacing the oral interview with a written test. Several coordinators mentioned that students need a personal touch: as one individual put it, "The procedure was better when they had judges; there is nothing to compare. The judge had that personal human contact ... They may be saving money, but they are short-changing a lot of newcomers." A third of the LINC providers suggested that the written test might cause less anxiety than an oral interview.

Discussion

It is clear that a general decline in the quantity and quality of adult citizenship education programs has taken place over the past decade. Not only are fewer programs in existence, but several of those remaining have downsized in terms of length. There is less emphasis on staff training and evaluation and far less contact with the Court of Canadian Citizenship. The content of courses is now driven almost exclusively by the multiple-choice test introduced by Citizenship and Immigration Canada, all the questions of which were derived from *A Look at Canada*.

It might be argued that ESL LINC programs are able to provide newcomers with the knowledge and skills required for Canadian citizenship, and indeed there appears to be a greater reliance on Canadian materials than in the period prior to LINC. There are reasons to believe, however, that LINC programs do not have a strong citizenship concentration:

- most students in LINC are within their first year of arrival, when their concerns are principally settlement and employment issues;
- ESL providers in this survey indicated that their primary focus is communicative competence—although they tend to use Canadian materials, the content is secondary because communicative skill-building is the ultimate goal; and
- the content of the citizenship test is viewed as somewhat arcane by ESL program providers (and apparently by the Canadian public) and therefore less useful in day-to-day life than basic English survival skills.

Some would argue that the changes to the citizenship process, including the implementation of the test and the mail-in application forms, are an improvement over the old procedures. For example, Appelt (1998) claims: "The Department of Citizenship and Immigration continues to find ways of *enhancing* Canadian citizenship.... Today new procedures are in place in order to shorten the time required for processing routine citizenship applications" (p. 18, italics added). Expediency and reduction in costs may be served by the changes, but should these factors be prime considerations in granting citizenship to newcomers?

The ultimate question Citizenship and Immigration policy-makers should be asking is not "How can we make the naturalization process more cost-effective?" but rather "What should our expectations of Canadian citizens be in general, and how can we best help immigrants meet those expectations?"

Coordinators of bilingual programs that cater to individuals with a limited grasp of English are by and large in favor of the multiple-choice exam because they can help their students to memorize sight words. Such exams, however, promote a superficial level of understanding of what it means to be a Canadian.

In some respects it seems as if two departments of the federal government are working at odds: Canadian Heritage has spent considerable money developing the CPI and has recently funded a series of seminars and think tanks related to citizenship education. At the same time, Citizenship and Immigration has put into place an extremely narrow notion of citizenship by eliminating many of the judge positions, by cutting funding to some programs, and by introducing a test that by its nature allows for no individualization of questions (e.g., Who represents you on city council?). One coordinator stated that "if it was their [the federal government's] intention to put me out of business, they're doing a great job." Apparently Citizenship and Immigration policy-makers view citizenship as little more than naturalization on committing to memory the small body of facts outlined in *A Look at Canada*. Rather than working at cross-purposes, the Department of Citizenship and Immigration should provide financial support to citizenship programs to ensure that the CPI materials produced by Canadian Heritage could be used.

Several respondents to this survey felt that becoming a citizen is a momentous and tremendously exciting event for new Canadians and that the changes, especially the lack of personal contact, have devalued the meaning of citizenship. The elimination of the hearings with a citizenship judge in particular was cited as a major loss. A human interviewer can adjust questions to the language proficiency level of the applicant such that every individual can respond to the best of his or her ability. The current procedure, where speed of processing paper is the only obvious goal, suggests that the government does not consider citizenship to be significant. This sends a disturbing message to immigrants: if the federal government doesn't value the importance of becoming a Canadian, why should they?

Perhaps we should be looking much further back than 10 years to get some insights on what citizenship education should entail. Saul (1997), commenting on a picture of immigrants in a 1913 citizenship class, noted the following on the blackboard behind the students.

> Duties of a Citizen
>
> 1. Understand our Government
> 2. Take active part in politics
> 3. Assist all good causes
> 4. Lessen intemperance
> 5. Work for others.
>
> ... the general assumption attached to immigration was the expectation that an immigrant would quickly join in the social process, which was democratic and cooperative. The primary duty was participation not patriotism. (p. 130)

Things are more complicated now than they were in 1913; Canada receives many more immigrants from non-European countries than previously. As a result, cultural differences between new immigrants and Canadian-born people are sometimes greater, and our fast-changing society can make adjust-

ment difficult. In order for immigrants to "join in the social process," both Canadian-born and newcomers should have a sense of what it means to be a citizen. The type of citizenship education offered to adult immigrants today does not begin to address participatory citizenship; without guidance and a will on the part of the federal government's Citizenship and Immigration department, the situation is likely to get worse.

Immigrants are not the only individuals who need some guidance in developing citizenship. For instance, there is evidence to suggest that the Canadian public is easily swayed by media accounts that lead them to view newcomers as an economic threat (Esses, Jackson, & Nolan, 1996), although immigrants other than British and Americans do not hold economic positions of strength compared with Canadian-born individuals (Mata, 1998).

Canada is a country of diverse regions, ethnicities, religions, and cultures; as such it has been held up as a model of peaceful integration. We can be proud of what we have, but we must also stand on guard to ensure that we do not lose what makes us most unique. Immigration and immigrants are at the heart of the Canadian reality; people come here because they want to be Canadians. We have a responsibility, therefore, to provide a means for people to learn about Canada—not just dates and names, but full-fledged discussions about the complexities and contradictions in this society.

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Curriculum, Identity, and Experience in Multicultural Teacher Education

This article reports on the initial stages of an ongoing action research project in multicultural teacher education. Operating from a view of curriculum as the creation of culturally significant domains for conversation based on principles of quality, quantity, relatedness, and manner, the project inquired into how a secondary English methods course centered on issues of cultural diversity and emerging professional identities was taken up by a cadre of predominantly white, middle-class students. The concluding discussion highlights the complexities of a social reconstructionist approach to multicultural teacher education in the absence of extending this focus across programs, coursework, and student teaching placements.

Cet article présente les stades initiaux d'un projet de recherche-action en cours sur la formation multiculturelle des enseignants. L'enquête reposait sur l'opinion selon laquelle le curriculum représente la création de domaines significatifs au niveau culturel, domaines guidés par des principes de qualité, de quantité, de rapprochement et de savoir-vivre sur lesquels s'appuieront des conversations. Ainsi, le projet a étudié la façon dont un groupe composé surtout d'élèves blancs de classe moyenne a suivi un cours d'enseignement de l'anglais au secondaire centré sur des questions de diversité culturelle et d'identités professionnelles émergeantes. La discussion finale souligne les complexités créées quand on limite l'application d'une approche basée sur la reconstruction sociale à la formation multiculturelle des enseignants, négligeant ainsi d'étendre son champ d'action aux programmes, aux curriculums et aux stages pédagogiques.

In a review of the current literature on research, practice, and policy in multicultural teacher education, Ladson-Billings (1995) concludes with the following provocation:

> Multicultural teacher education occupies a critical position between multicultural theory and multicultural practice. As the logical translator of theoretical and conceptual notions about diversity into real-world practice in the nation's classrooms, it may well be the determiner of the fate of multicultural education. (p. 756)

Ladson-Billings' (1995) position challenges teacher educators to (re)acknowledge the inescapably political nature of their work, work that in North America and elsewhere is located in institutions whose preservice programs can often lack a collective sense of purpose, especially in relation to multicul-

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tural education. Thus "To be meaningful and powerful in the life of diverse students," Ladson-Billings writes, "multicultural teacher education must confront the limitations and problems of traditional teacher education and 'business as usual'" (p. 755).

In addition to these significant tensions at the level of program, Sleeter (1995) has provided a version of what constitutes for her the personal dimensions of the challenge for white, middle-class instructors whose aims are multicultural and social reconstructionist:

> How does one involve a class of male and female white students from mainly middle class backgrounds in a critique of various forms of oppression and at the same time help them to construct for themselves insights grounded in emancipation *of other people?* (p. 416, italics in original)

Sleeter's (1995) concern springs from a sustained effort in the education literature of the last two decades to bring some conceptual clarity and practical effect to the terms *multicultural education* (Moodley, 1995; Sleeter & Grant, 1988) and *anti-racist education* (Brandt, 1986; Dei, 1996). Although some authors have sought to demarcate fundamental distinctions between the two (Thomas, 1984), others have suggested that they share the same basic concerns (Kehoe & Mansfield, 1993). Still others (Young & Buchanan, 1996) have combined the terms to talk of *multicultural/anti-racist* education in a manner similar to Sleeter & Grant's (1988) conceptualization of "education that is multicultural and social reconstructionist" (p. 175). This social reconstructionist perspective is premised on a recognition of structural inequalities in society based on culture, race, class, gender, sexual orientation, and disabilities and a responsibility of schools and faculties of education to contribute actively to the creation of a more just and plural society (Siraj-Blatchford, 1993).

In the context of these personal, professional, and institutional challenges, the purpose of the ongoing action research project reported in this article has been to engage with our teacher education students in exploring and elaborating on the nature of English language arts teaching and its processes in a social reconstructionist perspective on multicultural education. Central to this inquiry has been an exploration into how a view of curriculum as the creation of culturally significant domains for conversation, articulated by Applebee (1996), might operate in practice as a way of planning and delivering this preservice education course.

We undertook this action research project when our Faculty of Education had just redesigned its preservice teacher education program to a two-year after-degree model in which the field-based component was increased to constitute half of the students' time. In addition, the program endeavored to begin to develop a closer collaboration with practicing teachers and to strive for greater connections across faculty-based courses around the focus of critical and reflective practice. One immediate result was that when we met to discuss some of the ramifications of these initiatives, we were easily able to identify a mutual interest in several interconnected theoretical and practical lines of inquiry. One of us was particularly interested in grounding theoretical understandings and commitments to anti-racist education (Orlikow & Young, 1993; Young, 1995) with research into how issues of race and cultural diversity are

interpreted, negotiated, and taken up by a cadre of predominantly white, middle-class students in a curriculum and instruction (or "methods") course. The other author's involvement stemmed from his interest in narrative approaches to research and teaching (Graham, 1993, 1995) and his concern that the existing curriculum and instruction course for prospective teachers of high school English language arts was insufficiently attentive to the problems and possibilities of preparing students for the culturally diverse world of contemporary Canadian society.

In order to initiate, monitor, and document this action research project, Young acted in the capacity of a "critical friend" (McNiff, Lomax, & Whitehead, 1996, p. 84), whose role was to provide "encouragement, positive feedback and sympathetic support" (p. 85). This positive support was crucial, for it enabled Graham, the course instructor, to proceed with the almost daily task of taperecording his reflections on the events of each day's classes, reflections that included episodes of struggle and frustration as he tried teaching a course that both honored his students' real and expressed need for method and strategy, but at the same time tried to hold fast to a vision of language arts teaching for culturally diverse classrooms.

In his other role as co-researcher, Young sought and obtained ethical clearance to conduct and transcribe numerous interviews with students; as well, he amassed a voluntary collection of student learning logs and formal papers written as course assignments. In addition, at the conclusion of the school year, Young received the transcripts of Graham's reflections, documents that covered an eight-month period beginning in September 1996 and ending in March 1997.

Articulating a Framework for the Course

The task of rethinking an approach to the content and delivery of the curriculum and instruction course was greatly influenced by the work of Applebee (1996), who views curriculum construction as a way of helping students "enter into culturally significant domains for conversation" (p. 49). By stressing culturally significant domains, Applebee wishes to ensure that "education is organized around living traditions that look to the present and future as well as the past" (p. 49). With similar intent and expressed more concretely as principles for multicultural teacher education, Montecinos (1995) writes:

> A multicultural curriculum is one that allows all students, not just those who nicely fit ethnically-based descriptions, to see themselves represented in it. A multicultural curriculum is one which seeks to challenge hierarchical and oppressive relations among people who belong to different social groups ... A multicultural curriculum seeks to maintain the polyphony that characterizes a pluralistic, democratic society not just give the illusion of plurality. (p. 293)

In addition, by foregrounding the notion of a domain for conversation, Applebee (1996) wishes to ensure "that there is an emphasis on the structure and interrelatedness of ideas and experiences within a domain" (p. 49). Drawing on the work of Grice (1975) and Mayer (1990), Applebee (1996) believes that for the conversation to be effective two conditions must obtain: "all participants must honor a tacit agreement to cooperate in carrying the conversation forward" (p. 52), and that conversations will continue to work "only as long as the various

contributions are relevant to the common direction or purposes" (p. 52). In order to make provision for a curriculum that is both co-operative and effective, Applebee delineates four characteristics of effective curricular conversations having to do with the "*quality, quantity,* and *relatedness* of the topics of conversation, and the *manner* in which the conversation is carried forward" (p. 53, italics in original).

Applebee's (1996) suggestion for structuring curricular conversations was tempered by taking into account a number of local conditions and specific constraints. These had to do with the nature and extent of the students' prior life and teaching experiences, with program constraints around faculty-based coursework and with the well-documented findings on the impact of the practicum on preservice teachers' attitudes and dispositions (Zeichner & Liston, 1990). In addition, Britzman's (1991) work reinforced an appreciation for a complicating fact running parallel across the university and the school as sites of teaching and learning that the students' sense of themselves as emerging professionals was highly volatile and contradictory because they are both students and teachers at the same time, a liminal existence that often proves difficult for many students to inhabit successfully.

In addition, although Applebee (1996) believes that curricular domains "have a shape and structure that is planned rather than accidental" (p. 109), the instructor wanted to leave sufficient room for spontaneous changes in direction, for the discourse conventions to be flexible enough so that the students did not receive the impression that their conversations had to lead them to a narrowly predetermined goal. The intention was to construct a curriculum that contained material and experiences consistent with Applebee's concerns for culturally significant conversations of high quality and quantity, conversations that would honor method, but method consciously informed by theory. Central issues of relatedness and manner were addressed through efforts to establish conditions where personal connections could be made and pursued as the students moved from their faculty-based deliberations as a form of "dramatic rehearsal" (Dewey, 1939, p. 755) to the everyday realities of classroom life.

In order to initiate this process at the beginning of the school year, the students were provided with two articles on the problems and possibilities of introducing and teaching multicultural literature in high school (Beach, 1995; Fishman, 1995). Fishman explores the dilemmas of a white middle-class female teacher trying to move toward curricular selections that more adequately represent the culturally diverse backgrounds of her students, whereas Beach (1995) explores how all readers of literature inevitably read through their own "cultural scripts" (p. 87). These articles were selected to focus the preservice students' attention on the intersection of race, class, and culture (their own and their future students') as these might affect their professional roles as curriculum developers. It was also intended that these readings would make visible the contingent aspects of the preservice classroom itself as a site of power, negotiation, and resistance, a "hall of mirrors" (Schön, 1987, p. 253) wherein what is talked about is at the same time experienced.

The students also kept a learning log to enable them to think through at greater length some of what transpired in their time in class together; as well,

the students were asked to write a paper on a topic of their own choice using the conversations that were left "dangling" in the classroom as potential points of departure. Finally, the two initial class meetings after the first practicum block were set aside as a time for collective reflection and debriefing. By making their experiences both in the curriculum and instruction course and in the practicum problematic in these ways, a conscious effort was made to operate in the social reconstructionist tradition, a tradition "'that emphasizes teachers' abilities to see the social and political implications of their actions and to assess their actions and the social contexts in which they are carried out'" (Ladson-Billings, 1995, p. 749).

Working in association with these readings and assignments, issues of relatedness and manner were pursued in the class by the instructor's commitment to revisit continually how the themes of culture and identity made themselves manifest in classroom conversations around the craft of teaching and the nature of curriculum as a social and political construct. In addition, classroom talk made consistent demands on the students to justify continually and open up to rebuttal their own presuppositions around the nature of curriculum, culture, and teaching with a view to developing a more thoughtful personal framework for practice.

What follows in the two sections below is a series of excerpts taken from the transcripts of the instructor's reflections, from student learning logs, and from interview data with students. By devoting a separate section to classroom events that occurred pre- and postpracticum, we provide a sense of how the curriculum was understood and taken up in the changing discursive conventions of the classroom, as well as comment on the influence of the practicum in the students' overall experiences. In the concluding section we begin a discussion of what these data suggest about rethinking the conditions of possibility for multicultural teacher education curriculum.

Pre-Practicum Conversations as Dramatic Rehearsal

Applebee (1996), in explaining how different kinds of classroom structures tend "to support or inhibit the development of conversation" (p. 67), makes the distinction between the formal, the enacted, and the received curriculum. The formal curriculum is represented "in lesson plans, syllabi and textbooks" (p. 68); the enacted curriculum represents "the transformations that take place" in the teacher's and students' "interactions around the formal curriculum" (p. 68); whereas the received curriculum "reflects how students make sense of the curricular conversations in which they are engaged" (p. 68).

The following excerpts have been selected to dramatize the tensions in the classroom dynamic as the formal curriculum was enacted and received by both students and instructor alike. Although no claims can be made that the students' voices represent the opinions of the majority, they are included here for their typicality and for the way they forced us to challenge many of our own prior assumptions, pedagogical practices, and political investments. The first selection reports on a moment of instructional improvisation that, although spontaneous, was enacted in the spirit of the instructor's general aims for the class. It served to highlight our concern with engaging students in the idea of teaching as cultural work and of moving beyond issues simply of method to

issues of method theorized around Applebee's (1996) notion of big ideas. The example here centers around how English teachers as curriculum developers both censor themselves and are censored in their choice of literary selections in schools that are simultaneously contradictory sites of personal agency and institutional constraint.

Instructor's Notes, September 11, 1996

> I had asked six students to bring along copies of poems that they thought would extend or enhance previous work we'd done in class. By 10 o'clock two of the students hadn't shown up, so at the last moment I photocopied two poems from my resource pile and took them instead. One of the poems I chose was a poem in translation entitled "Mother" by the Japanese poet Nagase Kiyoko. Roughly speaking, the poem was about the ambivalence in the term "mother" in the sense that the poem challenges the traditional image of a mother as always a nurturing, self-sacrificing caregiver. For the group that was working on this poem, it became a catalyst for them to talk about the cultural construction of motherhood and the discussion this group pursued was about why they would or would not use this piece of literature in the class. I certainly wanted to encourage this discussion, so when the groups had more or less finished I made a point of bringing it up for class consideration. You could see instantly how this particular poem and the issues it represented began to polarize the class in very interesting ways. Some said, No, look, this poem is about politics and power; if this poem ever landed on somebody's dinner table there would be phone calls to the school about what are you doing here giving a poem that questions the nature of motherhood. Another said, I'd have to check with my head of department before I would attempt this. Others said, this is ridiculous, what are we protecting our students from? Let's get this material into the class in as sensitive a manner as we can and work with it. Others thought it was a poor choice of curriculum because it seemed to be beyond the capacities of its intended audience, which was a hypothetical grade 7 or 8 class. Others totally disagreed, saying that these kids have grown up so quickly this is not problematic for any students. Many students thought that a piece of curriculum that pried into the personal autobiographies of the students was an intrusive use of curriculum; others felt that's what language arts and a multicultural class is all about. We put big terms like *mother* and *fear* and *war*, all these big abstract terms on the table and see what writers have thought about them. I emphasized that, as a professional decision-maker, they're going to have to negotiate the nature, extent, and depth of their professional identities pretty much daily around something apparently as simple as the choice of a poem to work with in class.... So I invited the students to take some time to reflect in their learning logs on our conversation and to provide a personal response to it.

Learning Log Entry, White Male Student, early 20s

> The issue of "academic freedom" regarding the teacher's right to select curricula to teach was raised by a group that looked at the above poem. The questions raised were, "is a Grade 7 class mature enough to handle this?" and "will I run into trouble from parents who think this is inappropriate because of the images and emotions it evokes"—in short, "should I teach this or run away from it?"
>
> The question of whether a grade 7 class is ready for this in my view, is more legitimate as a deciding factor than the others. Our job as teachers is not only to teach English but to "teach life." Kids have to know that there are other ways of living; that not everyone exists in the same sort of arrangement that holds for

> them. If we present poems on, for example, the family, which portray only the "nuclear" family, what message will that send to someone being raised by a single parent?
>
> Situations, images, and emotions other than the neat and tidy Little-House-on-the-Prairie-style model that some people would advocate as appropriate for instruction certainly exist, and I believe it is our duty to make students aware of this fact. If you teach only "morally correct" materials, this is the same as censoring books that deal with controversial issues such as teenage sex or drug use. Denying something does not make it go away, but by shedding some light on an issue, it can be opened up and understood by students. Likewise, we should not be afraid to teach something that originates from a moral or political position with which we either strongly agree or disagree. The key is to teach such concepts from the closest thing to an unbiased position as is possible so that a particular view is not "pushed" on the students.

These comments found their origin in a moment that was unique and particular to that class, to that time, and to those circumstances as Schwab (1969) has informed us all curricular events are; consequently, a similar conversation did not occur in the other section of the same course. However, classroom time was set aside for both sections to respond to the articles by Fishman (1995) and Beach (1995), texts that were part of the formal curriculum and included to make problematic for both sets of students issues regarding culture, literature, and teaching, which had already emerged in one section as documented above. What follows are brief selections from the instructor's reconstruction of events in both sections, as well as learning log entries from two students, one from each section of the course.

Instructor's Notes, October 2, 1996

> Beach's piece on cultural models provoked a lot of discussion. One person said, what about bringing in copies of a pretty violent rap piece like "Cop Killer," to which another replied that I guess we're back to talking about goals again ... Another said, what would I be using this for anyway?—to show how a minority cultural group is misrepresented, to show how they're feeling emotionally about being abused by authority? ... Well, said another student, if by teaching only what my co-operating teacher approves of or that you think is not going to stir up any waves in the larger community, and knowing what we know of the fact that people read whatever it is through their own set of cultural models, you cannot keep cultural models out of the classroom no matter how much you think you are only engaging with "approved" literature.... One student said that it's clear that if you take this cultural model idea and try to honor the diversity of the class, no text can be ideologically neutral, and so when the teacher limits in what direction the discussion and inquiries will go that's also the political use of power and knowledge.

Learning Log Entry, White Male Student, Early 20s

> By cultural models, Beach implies the norms, outlooks, and way of life of different social groups ... The argument is that members of one group will read a piece in one way, usually quite different from the meaning that someone from another group will get from it. But this, for me, has one glaring weakness. Beach seems to imply that all members of a group, e.g., the "African-American male cultural model" hold the same values and read texts the same way. Even worse is his description of the attitudes of inner-city youths. These characterizations

seem like cultural stereotypes and go against most of what I've been taught in four years of university education.

Learning Log Entry, White Female, Early 30s

I don't think the cultural models are black and white and no one particularly fits into one cultural model. Categorizing people also assigns stereotypical behavior to them.... Students should be made aware that their cultural models could change as their goals in life change. Learning about a stereotypical cultural model may be disheartening or make the student feel trapped in a hopeless situation with no future.

At the present time as our Faculty of Education shifts from one model of preservice education to a new one, it is only in this the final year of their program that students have the opportunity to experience a sustained block of teaching under the guidance of a cooperating teacher and a faculty advisor. Most students regard this as the most important and valuable part of their program; and although many will have had some prior voluntary teaching experience, for the preservice teacher this is the litmus test of their ability to do the job. All of their Faculty-based work prior to the first teaching block is, as we note above, dramatic rehearsal, and after completing the block these experiences become the new lenses through which all subsequent coursework is scrutinized and evaluated.

Post-Practicum Reflections

Instructor's Notes, January 6, 1997

I just wanted to put down for the record some of the notes I made today after the students had a chance to talk about their experiences in the practicum. One major point was that they were very much intimidated by their cooperating teachers.... Many said that the whole experience of the five-week block was overwhelming in the sense that everything happened at once. Discipline problems, meetings about students, preparing for the next class when you didn't understand what just happened in the class you just did.... The stories of the students that came out of the secondary stream were of gossiping and backbiting and of departmental jealousies and of principals who were unapproachable, very much like Dan Lortie found out in the 70s.... Secondary teaching is a very isolating kind of thing where you rarely speak with other departments across the school and there's a kind of continual struggle for scarce resources.... Nobody mentioned issues of race, culture, or gender; I mean nobody mentioned any of those issues. I didn't bring it up because I wanted to see if it would come up, but all they were worried about was accountability issues ... I asked them what they had taught their students and if their views of literacy had changed at all. They said we tried this and we tried that, but the act of teaching didn't seem to be something that was of overwhelming importance. It seemed like none of that could happen unless other things like discipline were in place.

White Male Student, mid-20s

When I tried to do what I thought I wanted to do from our curriculum and instruction course, it wasn't what the co-operating teacher wanted me to do.... I often was the only Caucasian in the room when I was teaching and yet the staff room is full of Caucasians, there wasn't a Filipino teacher there yet 60% of the school's kids were Filipino. Stuff like that I noticed.... For me the student teaching block was my year's experience—hands on learning. I had been in university for

> a long time—this sounds unfair to Dr. Graham's class and it doesn't mean his class wasn't good—but student teaching was something I knew nothing about. Student teaching became everything. It's not really anybody's fault, but you are changed ... you are different after your student teaching, your view of teaching changes completely.... What you have to do then is every single year find out what ethnic backgrounds and racial backgrounds they have and then you basically give them one or two things that reflect their backgrounds and then you head off with Macbeth.

White Female Student, Late 20s

> I did some travelling shortly after I graduated from high school, and I had multicultural experiences in the Fijian islands, and I lived in a dung hut. I did all that when I was 18 and I was pretty young and I was pretty impressionable I guess. And then from that time on it became important for me to learn about world cultures and I thought I might want to travel or teach overseas. I would write in my journal stuff like how I don't want to be a part of an oppressive class or whatever ... and I wrote it in papers. I even wrote Roy a paper about literacy and does literacy mean that the lower classes can only learn how to read and punch a clock from a factory, and who owns language and who owns the discourse of power? I could talk on and on about that. But then all of a sudden, I'm in a classroom picking out a book that is excluding everybody in the class. And then I am being so oppressive and I felt so terrible. And that's where I'm learning stuff. This was a turning point for me.

Discussion

The early stage of our research project reported here does not provide much in the way of neat prescription to the question "What is multicultural English teaching?" or more pointedly, "How do I prepare others to do multicultural English teaching?" Rather, our research serves to highlight not only a number of interrelated tensions associated with a project of this kind, but also suggests to us some elements necessary to using Applebee's (1996) notion of quality conversation in a social reconstructionist approach to multicultural education. Included among the foregoing tensions would be: (a) the consequences for quality conversations given the narrow ethnocultural diversity in this preservice classroom itself; (b) the ambiguity and contradictions in the instructor's role around ideas of authority; and (c) the potentially limited nature of conversations if they take place only in the framework of one preservice course.

Despite the relative homogeneity of the students in this class, their perspectives included in this article challenge any simplistic notions that their experience of, and thinking about, culture is equally homogeneous. On the contrary, the varied backgrounds and experiences of the students regarding issues of culture provided a rich source for the kinds of quality conversations that Applebee's work seeks to provide. Nevertheless, as our work-in-progress indicates (Graham & Young, 1998), such conversations that take place without cross-cultural representation and participation—student and faculty—are likely to be limited in their range, quality, and immediacy. Further evidence of the importance of representation, as well as one picture of what integrated multicultural teacher education in Canada might look like, is beginning to emerge in the work of Solomon (1996).

For an instructor one of the major contradictions in making provision for quality conversations, conversations that we argue lie close to the heart of

effective teaching, is that they are largely "one-off": they can neither be completely planned in advance, orchestrated by the instructor, nor replicated from class to class. However, we are convinced that these conversations need to occur and to be guided by notions of quality, quantity, relatedness, and manner, as well as a central appreciation for an image of public school teachers as emancipatory cultural workers with all of the tensions and uncertainties associated with that role.

Our research to date reinforces the notion that for instructor and students alike this work is invariably disruptive and disorienting; it is teaching and learning "against the grain" (Simon, 1992). Instructors in particular must be willing to reevaluate constantly and reconsider the impact of their own manner, style, and attitude in the shifting configurations of authority and power in the classroom (Shor, 1996). The constant effort to theorize a concept of praxis that references the dual themes of cultural diversity and emerging teacher identities makes both problematic and personal everyday matters of curriculum development, classroom practice, and school and university structures.

For faculties of education the frequent lack of integration across students' coursework and, critically, integration with their initial preservice teaching experiences would seem to limit the possibilities of success in creating an identity as a competent multicultural teacher. Creating this identity remains in large part an individual student project that may or may not be supported by coursework, instructors, cooperating teachers, and the culture of the schools in which they complete their student teaching placements. It is this lack of cohesion and political edge that Ghosh (1996) laments when she considers the superficial nature of change in teacher education in North America. However, she, like us, derives a sense of possibility from how a general discourse of change has "prompted discussion on how to make teacher education multicultural by focusing on teacher educators themselves" (p. 87).

If teacher educators are inclined to accept that at least part of the fate of multicultural education will be closely linked with teacher education, and hence with the attitudes and practices of those who teach the teachers, then inquiring into the realities that constitute our own professional identities should be as important as the expectation that our students explore their own emerging identities as professionals. The significance for us of our initial data is to underscore the importance of extending our conceptualization of multicultural teacher education to include quality conversations with local teachers and colleagues working in all dimensions of our preservice teacher education program.

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Questions in a Research Setting

Because closed-ended (multiple-choice) questioning formats are often used in educational research, it is important to understand how presenting response options can affect the data obtained. In this study children and adults answered questions in an open-ended condition or one of two closed-ended conditions where options were either likely or unlikely. Participants who were presented with unlikely response options generated their own responses more often than participants who were presented with likely response options. On the other hand, children were more likely than adults to choose the presented response options regardless of how unlikely they were. These findings have important research implications; response options for closed-ended data collection devices must be selected carefully to reflect real-world possibilities.

Étant donné que l'on emploie souvent des questionnaires sous forme de questions fermées (à choix multiples) dans la recherche en éducation, il est important de comprendre comment la présentation du choix de réponses peut influencer les données ainsi obtenues. Les enfants et les adultes qui ont participé à cette étude ont répondu soit à des questions ouvertes, soit à des questions fermées où les choix de réponses étaient probables ou improbables. Les participants à qui on avait présenté des choix de réponses improbables ont produit leurs propres réponses plus souvent que ceux à qui on avait présenté des choix de réponses probables. Par ailleurs, les enfants étaient plus portés que les adultes à choisir les réponses proposées, indépendamment de leur improbabilité. Ces résultats ont des implications importantes pour la recherche: dans la collecte de données, il est important de bien formuler les choix de réponses aux questions fermées pour qu'ils constituent des possibilités réalistes.

Questionnaires are increasingly being used in educational research. They are relatively simple and efficient to administer and score, and they allow for standardized data collection. As with any data collection device, however, questionnaires have the potential to provide misleading, incomplete, or even incorrect information about the research questions for which they were designed.

Schwarz (1996) reviewed a large number of questionnaire studies and concluded that the range of presented response alternatives in questionnaires can greatly influence the data that are obtained. For example, Schwarz, Hippler, Deutsch, and Strack (1985) found that the range of response categories provided in a closed-ended (multiple-choice) question format influenced both the

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behavioral reports obtained and their subsequent judgments. Participants in one condition reported their daily use of television on a scale that ranged from up to 30 minutes to more than two and a half hours, whereas those in another condition used a rating scale that ranged from up to two and a half hours to more than four and a half hours. Participants in the second condition reported a higher use of television and estimated a higher average use of television than the participants in the first condition. Schwarz et al. (1985) argued that the participants used the presented response alternatives to estimate the average amount of television viewed and subsequently placed their own television-viewing behavior within this framework.

Schwarz's (1996; Schwarz et al., 1985) research reinforces the idea that participants use presented response alternatives to interpret the meaning of a question. Consequently, questions that are worded in an identical manner may be interpreted by research participants in different ways because different response options are presented to them. The range of presented responses can influence the results that are obtained because participants may assume that the responses reflect the researcher's assumptions about the distribution of behavior in the general population. Hence participants may use the information provided to estimate their own behavior in a way that is socially desirable in relation to the behavior of the general population.

In contrast to the vast quantity of research that has been conducted with adults, little research has been done with child populations. Exploring the impact that presented response alternatives has on children is important. After all, in the research setting children are often placed in a new situation in which they must interact with a stranger (Powell & Vacha-Haase, 1994). Without the security of having a parent by their side, children may become nervous and/or apprehensive. Thus when authority figures present response options to children in the experimental procedure, children may be more likely to choose a presented option because they think these are the responses that the researcher would like to hear.

Developmental differences may also play a role in how children respond to response options. For instance, Powell and colleagues (Powell, 1968; Powell & Isbister, 1974; Powell & Shklov, 1992) suggested that a developmental reasoning hierarchy exists. By examining the mistakes that children and adults made in response to multiple-choice tests, these researchers found that when children could not retrieve a specific answer from memory, they employed different thinking strategies to select an answer. What thinking strategy a child uses depends on his or her age. For instance, Powell and Shklov (1992) found that 10-year-old children used the literal meaning of a phrase, whereas 12-year-old children used the figurative meaning. To explore the possibility that children and adults are differentially affected by response options, we tested both adults and children.

In addition to the need for more research exploring the influence of both qualitatively different response options and developmental differences, more research is also needed to compare the responses from open-ended and closed-ended questions. There was a huge controversy over the use of open-ended and closed-ended questions in the 1930s and 1940s. In more recent years, however, comparisons of open-ended and closed-ended questions have often

been based on common sense rather than on support from existing research in this area (Schuman & Presser, 1981). Thus research directly comparing the results obtained from open-ended and closed-ended questions is needed.

The goals of this study were to explore how the likelihood of response options affects children and university students, as well as whether the mere presence of response options influences reporting by children and university students. Children in grade 3 were selected because they are capable of reporting on their behavior (Siegler, 1991) but may be young enough to be influenced by the experimental setting. This research is important because researchers are beginning to rely more on standardized procedures and closed-ended methods for efficiently collecting large amounts of information from research participants. Questionnaires are being used to collect interest, attitude, and self-reported behavior information from children, adolescents, and adults in many different areas ranging from informal classroom interest surveys and multiple-choice tests to published research reports (Macmillan, Liu, & Timmons, 1997; McEwen, 1998).

Our experimental task involved immediate retrospective reporting of spelling strategies. We had participants spell words and then report their spelling strategies in one of three conditions. In the open-ended condition participants derived their own spelling strategies in order to answer the question "How did you know how to spell the word that way?" In two closed-ended conditions the participants were asked the same question and then were presented with a series of response options. In the likely condition participants were presented with likely spelling strategy options, whereas in the unlikely condition participants were presented with unlikely spelling strategies. The participants in the closed-ended conditions were also given the option to generate their own answer. This latter option was provided so that none of the participants was forced to choose any particular response, thus allowing for a comparison of the responses to all three conditions.

We chose a spelling task that has been extensively investigated (Steffler, Varnhagen, Boechler, Friesen, & Taylor, 1997; Steffler, Varnhagen, Friesen, & Treiman, 1998). As well, we used nonword stimuli (e.g., *smag*) to ensure that all the participants had similar exposure to the words regardless of their differing experiences with words and/or their age. The use of nonwords also allowed participants to use a wider diversity of spelling strategies. Because the participants usually were not able to retrieve the words from memory directly, they had to use spelling strategies such as sounding out the words or comparing them to other words that they were familiar with. We used the strategy reports from Steffler et al. (1997) to develop the response options for the two closed-ended conditions. Drawing specific spelling strategies from preestablished categories allowed us to ensure that response options presented in the closed-ended conditions were matched on all dimensions except for likeliness.

Method

Participants

The participants were 60 grade 3 children and 66 introductory psychology students. All the participants were native English speakers.

Table 1
An Example of the Likely and Unlikely Options for the Word *smag*

Option	*Strategy*	*Condition* *Likely*	*Unlikely*
"a"	Direct retrieval	I knew the word *smag*	I knew the word *smag* because it is a game that I used to play when I was younger
"b"	Analogy	It sounded like the word *smog* with an "a" instead of the "o"	It sounded like the word *mag* with an "s" in front of it
"c"	Segmentation	I sounded it out like "sm - ag"	I sounded it out like "sma-mag"
"d"	Generated	I spelled it another way: Participant provides another strategy	I spelled it another way: Participant provides another strategy

Materials

The spelling test consisted of 32 four-letter nonwords (e.g., *smag, dasp*) used by Steffler et al. (1997). Table 1 shows the options provided in the likely and unlikely conditions for the example *smag*. In all cases, option "a" represented direct retrieval, option "b" an analogy strategy, option "c" a segmentation strategy, and option "d" an open-ended option in which the participant could express some other strategy used. The likely condition options were constructed from the commonly reported strategies in Steffler et al. (1997). The unlikely condition options were not observed by Steffler et al. and were also constructed to represent inconsistent strategies. For example, the unlikely segmentation option written for *smag* included repetition of parts of the nonword. Similarly, the analogy option makes reference to a "word" that is really a nonword.

Procedure

Participants were tested individually and were informed that they could leave the experiment at any point in time.

Two practice trials identical to the experimental trials allowed the participants to become familiar with the task. The participant listened to a word, heard it in the context of a sentence, listened to the word again (e.g., "smag. The little smag rolled down the hill. smag."). The participant then typed the word on a computer. After spelling each word, the participant was probed for the spelling strategy used.

In the two closed-ended conditions, the participant was presented orally with a series of spelling strategies in the standard multiple-choice format. The participant was instructed to choose one of the options or generate a strategy for the word. In the likely condition the participant selected an answer from a series of likely spelling strategies or described another strategy; in the unlikely condition the participant chose from a presented series of unlikely spelling strategies or described a technique that was not already presented as an option. In the open-ended condition the participant was merely prompted to report his or her spelling strategy.

Coding

To determine whether the likeliness of the presented options influenced responding, only the data from the closed-ended conditions were used. For this analysis the frequency with which options "a," "b," "c," and "d" were chosen was calculated for each participant and the mean frequency of each option was calculated for each group and condition.

To determine whether specific spelling strategies were influenced by the presence of response options, data from the three conditions were coded according to spelling strategy categories. Most of the data could be coded as direct retrieval, analogy, or segmentation. Overall, few responses did not fit into one of these three categories; these were not included in the analysis. Two researchers independently coded the data, and the overall reliability of the coding was 99.4%. The frequency of each strategy category was determined for each participant and mean frequency for each category was determined for each group and condition.

Results

To address our question of whether the likelihood of response options influences participants' responses, we analyzed frequency of responses to the four options with a two between-subjects (Group and Condition) by one within-subject (Option) repeated measures analysis of variance (ANOVA). There was a main effect of Option, $F(3, 240)=56.99$, $p<.05$. According to Tukey's honestly significant difference (HSD) post hoc analyses, option "d" (generated strategy: $M=15.9$, $SD=10.3$) was chosen most often, followed by option "c" (segmentation: $M=10.0$, $SD=9.4$), option "b" (analogy: $M=4.9$, $SD=5.1$), and option "a" (direct retrieval: $M=1.1$, $SD=3.5$) was chosen least often, $HSD=2.16$, $p<.05$.

Option interacted with Condition, $F(3, 240)=21.18$, $p<.05$, and with Group, $F(3, 240)=3.44$, $p<.05$. Participants in the likely condition ($M=13.9$, $SD=9.7$) selected option "c" (segmentation) more often than participants in the unlikely condition ($M=6.0$, $SD=7.3$); conversely, participants in the unlikely condition ($M=21.1$, $SD=9.4$) selected option "d" (generated strategy) more often than participants in the likely condition ($M=10.5$, $SD=8.2$), $HSD=4.42$, $p<.05$. Similarly, regardless of what condition they were in, adults ($M=18.0$, $SD=10.1$) selected option "d" more often than children ($M=13.6$, $SD=10.1$), $HSD=4.42$, $p<.05$.

The three-way interaction between Group, Option, and Condition, $F(3, 240)=2.79$, $p<.05$, is shown in Figure 1. Adults and children did not differ in terms of responding to the likely options, but they did differ in how they chose the unlikely options. As shown in Figure 1, adults in the unlikely response condition were statistically significantly more likely to choose option "d" (generated strategy) than children, $HSD=7.07$, $p<.05$. These results demonstrate a differential effect of the likelihood of options on responding by child and adult participants in an experimental setting; children are more willing to accept one of the presented options even if it is an unlikely option.

To address our question of whether the mere presence of options can influence responding, we analyzed general strategy responses from the three experimental conditions with a two between-subjects (Group and Condition) by one within-subject (Option) repeated measures ANOVA. There was a main effect of Strategy, $F(2, 240)=84.59$, $p<0.05$; overall, analogy ($M=15.8$, $SD=9.8$)

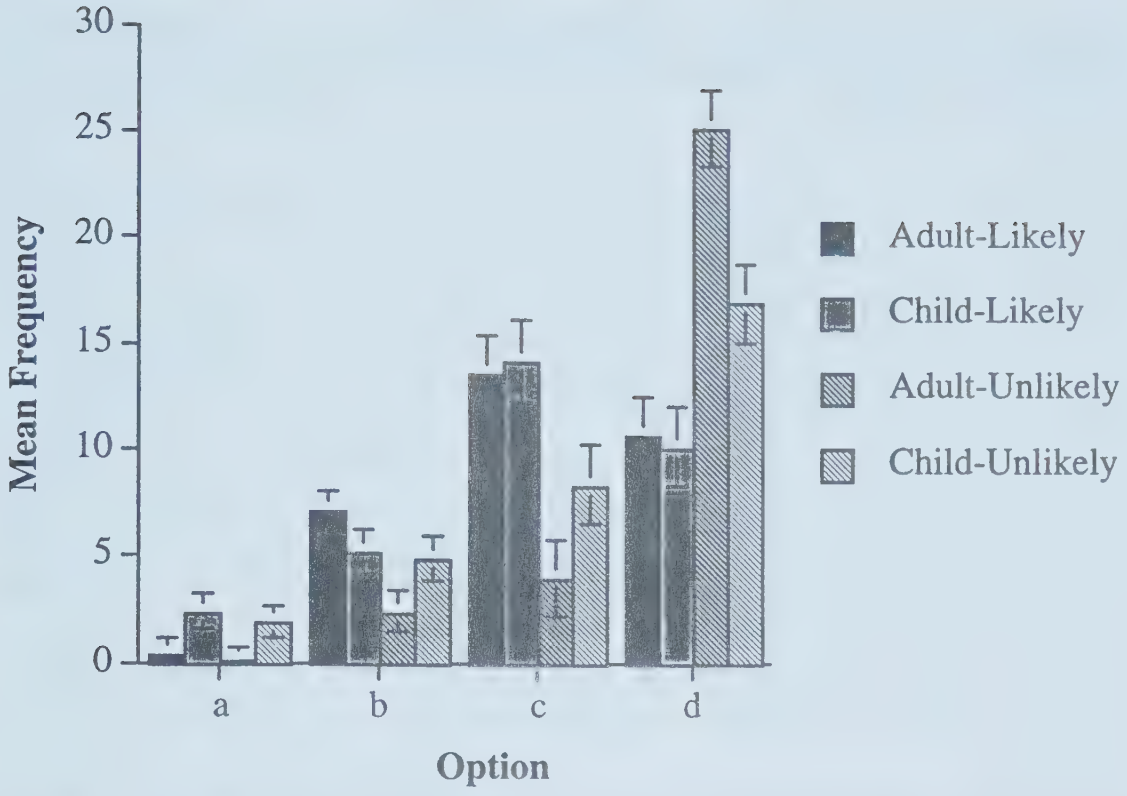


Figure 1. Mean frequency of responses to the four options by adults and children in the likely and unlikely conditions.

and segmentation (M=14.4, SD=9.9) were reported equally frequently and more often than direct retrieval (M=1.3, SD=3.4), HSD=2.01, p<.05.

There was a significant interaction between Option and Condition, $F(4, 240)=84.59$, $p<0.05$. Participants in the unlikely condition (M=19.0, SD=7.9) reported an analogy strategy more often than participants in the likely (M=13.7, SD=9.9) or open-ended (M=14.4, SD=10.9) conditions; conversely, participants in the likely (M=15.9, SD=9.9) and open-ended (M = 16.4, SD=10.8) conditions were more likely to report a segmentation strategy than participants in the unlikely condition (M=11.0, SD=8.0), HSD=4.66, p<.05. This finding may be associated with likeliness of the options in the unlikely condition: close examination of the segmentation strategies constructed for the unlikely condition in this study may have been more unlikely than the analogy strategies. Although the unlikely analogy strategies were somewhat ridiculous and never observed by Steffler et al. (1997), they were possible (e.g., *smag* is like *mag* with an *s* in front of it). The unlikely segmentation strategies, on the other hand, were phonologically incorrect. That is, the strategies presented did not accurately represent the phonemes of the nonwords. An example of a segmentation strategy used in the unlikely condition was *sma-mag*. Because the *ma* sound was repeated, the nonword represented by this strategy was actually *smamag* rather than *smag*. Thus the presentation of segmentation strategies that were more unlikely than the analogy strategies may have contributed to the use of more analogy strategies than segmentation strategies in the unlikely condition.

There was an interaction between Option and Group, $F(2, 240)=4.99$, $p<0.05$. Although children used analogy (M=13.6, SD=11.0) and segmentation strategies (M=16.2, SD=11.2) at a comparable frequency, adults used analogy strategies (M=17.8, SD=8.3) significantly more than segmentation strategies

(M=12.9, SD=8.3), HSD=4.89, p<.05. This finding that adults report analogy more than phonological segmentation strategies is consistent with the findings of Steffler et al. (1998).

Discussion

Our results indicate that the presence of response options in a research setting influences how participants respond. Both adults and children who were presented with likely options were more likely to choose them than participants who were presented with unlikely options. On the other hand, children were more likely than adults to accept the unlikely options as representing the strategies they used to spell the nonwords. Thus the likeliness of the response options appears to influence the responses that are obtained from children versus adult research participants. These findings extend the work by Schwartz and his colleagues (Schwarz, 1996; Schwarz & Hippler, 1991; Schwartz et al., 1985) to demonstrate that children are even more sensitive than adults to response options in an experimental setting.

The findings from our study have important implications for research methodology. Researchers need to acknowledge that how research is conducted may affect the results that they obtain. One caution involves the combination of closed-ended options with an open-ended option. The participants in our study were more inclined to choose a presented option than to generate their own answers. Rather than relying on the ubiquitous "other" option in questionnaires to pick up any accidentally omitted responses, researchers need to develop a better understanding of what responses are possible before writing a questionnaire or other closed-ended data collection device.

At the same time, researchers must also be wary of including only closed-ended questions because of the danger of question constraint. This occurs when the options presented to the participants are restricted and participants work in the framework of the presented response alternatives (Schwarz & Hippler, 1991). When the goal of research is to discover how or why something is done, it is crucial for participants to generate their own answers with as few experimental prompts as possible so that the data generated are valid and truly reflect the beliefs of the participants. This is particularly important when conducting research in an area that is not yet well established.

The findings from this study also have implications for research with children. The children in this study were more likely to choose presented options than were adults. More important, the children tended to choose even unlikely options. This implies that children may be more inclined to choose the options presented by the researcher regardless of how likely or unlikely the responses may be. Researchers working with children must be careful to present response options that are representative of responses that would be obtained in an open-ended situation.

Overall, our research supports the notion that context plays an important role in the experimental setting. It is important for researchers to recognize that the experimental setting itself may influence the results that are obtained as much as whatever the participants bring to the setting or the experimenter manipulates in the setting. In particular, researchers need to be cautious when deciding whether to use closed-ended questions. By being aware of the poten-

tial advantages and disadvantages of particular question formats, researchers can make more informed choices about the question format that may be most effective for their purposes.

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Research Notes: Guidelines

The *Note* should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the *Note* could be either a specific study or inquiry or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a *Note* is 1,000 words (about 4 double-spaced pages in standard 12-point type), excluding references and one or two tables or graphs. To encourage communication between researchers, authors of *Research Notes* are asked to provide contact information such as e-mail, fax, and/or telephone numbers for publication with each *Note.* No abstract is required, but in all other respects the usual **ajer** guidelines for manuscripts should be observed.

Submissions to *Research Notes* will be reviewed for readability, clarity, organization, length, and adherence to all *Alberta Journal of Educational Research* (**ajer**) guidelines. Any submission that is judged to meet these criteria will be published as soon as possible to minimize the usual delays in moving submissions to publication. Any submission that is judged to require revisions according to the criteria outlined will not be published, as the *Notes* must have some currency if they are to serve the purposes identified.

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Personal and Professional Experiences in Academic Exchanges and Visits

Purpose
This article reports on research in progress, the purpose of which is to examine the personal and professional experiences of faculty members from different universities and colleges in North America and abroad after they engage in academic visits and exchanges at other institutions of higher learning. The researchers are based at two United States and two Israeli institutions, but the visits and exchanges that flow into and out of these four institutions widen the field to include Canada, Africa, and the United Kingdom. We are also actively engaged in the solicitation of other participants through professional contacts and conferences. The goal of the research is to bring to light the difficulties, challenges, and rewards professional visits and exchanges involve, with the aim of making such experiences more productive. Improving the quality of faculty visits and exchanges can benefit the visitor, the host institution, and the visitor's home institution to which he or she will return, as well as contributing to intercultural understanding.

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Perspectives

Most institutions of higher learning see a steady stream of visiting faculty, who may come to engage in cooperative research, teach a summer course, take on a full load of teaching duties, or spend a fairly relaxed sabbatical semester or year. This practice is likely not only to continue but to increase, as national and cultural borders become more fluid and international travel and communication become the norm. This dimming of borders can bring both benefits and challenges. De Frankrijker (1997) writes

> Economic climate and technological developments have set the world in a perspective moving toward one metropolis. It will be a long and hard road to find an adequate balance in combining these integrative economic forces with political and sociocultural differences. In this process, conflict rather than harmony is never far away. Above political and cultural vision, communication and management will determine how (un)successful we will be in making this global perspective in creative and peaceful ways. (p. 659)

To help nurture harmony and learning, and to prevent conflict as much as possible, the move to a "global consciousness" (Shames, 1997) must be studied at the personal and professional level of the increasing number of intercultural travelers. Study of the professional and personal dimensions of academic visits and exchanges should be one of the cornerstones of this field of research.

There are several areas of related research. One large study of preservice teachers' overseas practicum experiences (Mahan & Stachowski, 1994) showed that US preservice teachers' concerns about classroom management, lesson planning, and instructional strategies were similar in US and overseas classrooms. This means that despite cultural differences the students saw the classroom setting as similar from place to place. As well, the overseas experience made students focus critically on their professional preparedness and broadened their perspective on schools, teaching, and students.

In Israel researchers have investigated the experiences of immigrant teachers as they adjust to teaching in a new situation (Horowitz, 1985). Research on immigrant teachers may address some issues similar to those visitors face, but the emphasis will be different for a teacher who must adjust permanently to a new situation than for one who intends to return home after a specified time. Indeed one of the best-developed areas of this field of interest centers on the difficulties faced by intercultural travelers, including scholars, on reentry to their home culture (Martin & Rohrlich, 1991).

Research on teachers' value orientations between cultures may also provide some useful information in terms of shared values, which may be areas of comfort during a visit or exchange, and markedly different values, which are likely to lead to conflict or at least discomfort (Chen, Liu, & Ennis, 1997).

As bastions of technical rationality, universities have not encouraged reflective interaction between faculty members (Schön, 1983). This no doubt affects the experience of visiting faculty because, as Fullan (1982) has written in the context of educational change, "Interaction is the primary basis for social learning" (p. 72). Visiting faculty members come to contribute and also to learn. The more isolated they are, the less fruitful for everyone their visit is likely to be.

Finally, although Kauffman, Martin, and Weaver (1992) state that six months in a different culture is the minimum amount of time necessary to produce real changes in a person, results of the present study show that shorter visits can also give educators a basis for comparison with their home situation and a chance to develop new professional relationships, as well as being an impetus to the development of new ideas.

Method

Faculty members from any university or college are eligible to participate in the study according to the following criteria:

1. The visit or exchange is at least one week in duration.
2. It involves at least one official professional activity such as teaching a course or engaging in collaborative research.

Data are being collected through a semistructured questionnaire or through an interview of similar content, depending on the preference and convenience of each respondent. The questionnaire and the interview are available in Hebrew for the Israeli respondents, and these data are then translated into English. Questions are asked in a number of categories.

1. Background information: professional history and nature of the visit;
2. Experiences, difficulties and challenges of the visit—physical and working conditions, financial arrangements, friendship and social relationships, and family;
3. Cultural conditions: similarities and differences;
4. Professional conditions: administrative support, research, teaching (including comparison of students in the two countries and adjustments in teaching style);
5. Visits to schools: similarities, differences, and preconceived notions about schools in the host country;
6. Description of a critical incident that marked a turning point in the visit;
7. Description of how professional practice, professional knowledge, academic activities, and personal awareness and values have been affected.

Preliminary Findings

Based on data from 20 respondents (the goal being 100 or more), data analysis is at an early stage. In-depth analysis, including analysis of critical incidents, awaits the accumulation of more data. Preliminary descriptive findings are that academic visits involve a rich variety of activities, including guest lectures, participation in forums, engaging in collaborative research, and teaching at the host institution. Shorter visits tend to be intense, whereas longer visits result in deeper and more reflective change. Personal arrangements differ depending on the length and purpose of the visits. Accommodations vary from college or university dormitories or small apartments, living with other faculty, or staying in rental apartments. The salaries of most individuals are paid by their home institutions, and a few faculty receive some compensation from the host institution.

A strong and committed contact person at the host institution greatly enhances the visitor's experience and the fruitfulness of the visit. Without such a support person, misunderstandings and occasionally painful isolation can mar the visit. The impact of visits and exchanges is often transforming for the

visitor, and sometimes also for host faculty. New experiences fuel both personal and professional changes. Due to the intensity of the experiences, strong bonds may develop between visitors and host faculty members, bonds that cross boundaries between personal and professional lives and include participation in each other's family activities. After the visitor returns home such friendships continue and stimulate ongoing professional contact including joint research projects and other scholarly activities. In a related vein, when colleagues from one institution come together to a host institution, the bonds between them are strengthened in such a way that their working relationship is improved on returning home. In a few cases faculty are more critical of their home institutions on their return after seeing "greener grass on the other side," becoming more cynical and less content.

As a result of being together in both formal and informal settings, both the visitors and the host faculty develop deeper understanding of the nature of each other's work and of the cultural-contextual factors influencing modes of working.

Although sabbatical visits by university faculty to other institutions have been the norm for some time, the ease of air travel and the speed of electronic communication is facilitating more visits by faculty from more different kinds of academic institutions, to places more distant than ever before. Faculty exchanges contribute to the sharing and development of knowledge in the global environment. It is vital that we understand the experience of visiting faculty and nurture their intellectual and cultural contributions. This requires the collection of qualitative data about this important and relatively unexplored field of inquiry. We welcome communications from colleagues who would like to participate in our research and share their sabbatical experiences.

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In Search of Aesthetic Learning Spaces

Introduction

As a teacher and parent I feel educational reforms of the last two decades have focused on objectifying specific learning outcomes resulting in much superficial rather than substantial learning. With emphasis on what may be superficial behaviors, little attention is given to assimilation, internalization, or integration of thoughts. Reading Britzman (1991) and Garrison (1995) validates the direction of my thoughts. Britzman's (1991) discussion of the structure of teaching experience that compartmentalizes knowledge, separating pedagogy from content, knowledge from interests, theory from practice, and Garrison's (1995) view of the necessity of style in teaching both point for me to the pivotal place that the *aesthetic* should hold in teaching-learning situations. Dewey (1934) states that aesthetic experience is "experience in its integrity ... experience freed from the forces that impede and confuse its development as experience" (p. 274). This is precisely the dilemma Britzman (1991) portrays of the fragmentation of experience and how that plays out in praxis. Garrison's (1995) concern with the dominant technocratic discourse and its devastation of style reiterates this. I conclude that greater aesthetic awareness is a pragmatic and philosophical necessity missing in much schooling. But, as Garrison and Britzman suggest, the existing educational structures do not support or encourage this. An aesthetic context calls for a rethinking and revaluing of what is educationally important. Perhaps, as Greene (1991) states, "it will also disclose the unexpected. Education will be viewed as if, after all, it can be otherwise" (p. xi). I am exploring such possibilities along with the concrete implications of taking aesthetic considerations seriously in a school setting. Opened in September 1997, the Creative Arts Centre, Milton Williams School, the Calgary Board of Education, has chosen to value the creating process, primary to the arts, in the school curriculum as a whole. The people involved obviously see a significance in the *aesthetic* for all learning. Thus it seems an ideal situation in which to pursue connections between curriculum theory-practice and the aesthetic.

Purpose

The Creative Art Centre's mandate is to infuse the arts into the school curriculum as a whole. They define the aesthetic as a valuing of the arts making processes as an approach to meaning making. Thus aesthetic experience is not a function of a physical object, but of the awareness that the act of creation precipitates. The purpose of my inquiry is to explore how teachers at the Creative Arts Centre create, maintain, and nurture such aesthetic learning spaces in their classrooms.

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Over the 1997-1998 academic year I explored with participating volunteers (26 students, 26 parents, and 3 teachers) how the aesthetic constituted learning experiences in particular ways. I am continuing to do this over the 1998-1999 academic year. Dialogue is the fundamental process in which meaning and understanding are evolving through individual open-ended interviews and focus groups. This is supported by artifacts indicating learning processes and development and regular classroom observations, as a means to enhance and validate insights gained through dialogue.

I am aware that themes and observations are emerging part-way through this inquiry that begin to document the aesthetic milieu being formed and reformed, initiating consideration of the significance.

Themes Emerging

Teachers and students are thinking and acting differently in regard to how learning occurs in classrooms. This is evidenced in a style of aesthetic play that permeates the observed classrooms. This is a sensitivity to the many nuances and possibilities present and a willingness to play along with them. Initiating, sustaining, and enhancing links between students and learning through aesthetic play is central in these classrooms. Gadamer's (1989) view of aesthetic play as a pattern or structure continually reconstituted by those who play along with it parallels my experiences of patterning in these classrooms. These are spaces infused and unified by pattern. These patterns appear, disappear, and reappear. I continually rediscover patterns in each classroom. In each pattern different interactive relationships are explored. But all arise from perceptions of the relation between parts and whole. These patterns are signs of dynamic activity at work. Dewey (1934) talks of common patterns in his notion of *experience,* commenting that there are conditions to be met without which aesthetic experience cannot come to be. Through being attentive to these various relations of parts to whole in these patterns, I am aware of recursive themes infused in fluctuating patterns. It is the confluence of these themes as interactive relationships that forms and reforms the patterns; always in the making. Perhaps they form the needed space (Dewey's conditions) for aesthetic play.

Attentiveness. Through close observation and given time to dwell with and in learning situations, attentiveness is a willingness on the part of teachers and students to be receptive to sensory qualities and relations.

The personal. All learning intersects with personal experience. Knowledge grows from and is a reflection of lived experience. There are many ways the world can be known.

Emotional. Learning is about discovery. The discovery is neither an object nor a concept, but rather a feeling or mental state that is personally invested with commitment.

Felt freedom. Learning needs space and freedom that encourages diversity.

Discursive. Felt freedom constructs a pattern of thought. Dialogue with self and others is crucial. The discourse entered into becomes the link to sense-making. It suggests an organization for the learning process to take.

Inquiry-guided. The organization emerges from the inquiry itself. It is always in the making. As such it requires openness to possibilities, attentive listening, and responding.

Projective. Encouraging projection means students do not plan all aspects of their learning endeavor to begin with. This promotes speculation and conjecture about possibilities.

Self-identity. Relations between self and other are continually addressed through learning activities that foster greater self-consciousness.

Observations Emerging

- All students, parents, teachers, and administration reported coming to the Creative Arts Centre searching for differences in learning.
- In attracting students and parents desiring difference, classrooms have a diverse student population.
- The centrality and importance of the teacher's place and role in affecting aesthetic considerations in the classroom is crucial.
- Classrooms need to be organized for a meeting space, large project work space, individual desk work, and greater display space.
- Resources, books, supplies, equipment, and computer work stations must be more accessible for classroom use on an as-needed basis.
- Time to connect, share ideas, be informed as to directions teachers and students are taking, and provide support in teams, is needed.
- Ongoing education of parents and the wider community is beneficial.
- Time blocks that are of a sufficient length to allow for extensive projects is a consideration; flexible time blocks to accommodate special events.
- Teachers and administration must have a common understanding of teaching in an arts-infused environment for continuity and development long term; ongoing professional development is valuable, with the emphasis being on teachers discovering more possibilities themselves for their teaching practices in an arts-infused environment.
- All staff (teachers, administration, and support) must know what is happening in classrooms in order to encourage and support creative teaching.

Summary

The Creative Arts Centre seems to be filling a need in the public education system in Calgary. Aesthetic play is the dominant teaching style. This is a continual process of connecting parts within the whole. Increasingly student thinking and work evidence greater attention to assimilation, internalization, and integration of thoughts. Knowledge is less compartmentalized, with theory and practice, and knowledge and interests, closely intertwined. This is teacher-dependent. Teachers must be confident in approaching learning in this way. A complementary physical space and scheduling structure is required to further foster and support creative teaching-learning. Aesthetic considerations in teaching-learning situations appear to honor individuality and difference through curricular diversity, multiple forms of representation, and ongoing assessment that is attentive to qualities and differences in understanding. These considerations are qualitative, personal, and value-laden and do not fit

well into existing educational and accountability frameworks. An aesthetic context appears to call for rethinking and revaluing what is educationally important. Thus a common vision of learning at the Creative Arts Centre must continually be addressed through ongoing professional development for teachers and other staff and educational opportunities for parents and the wider community.

I look forward to exploring these considerations further over the 1998-1999 academic year.

Acknowledgments

I would like to acknowledge the enthusiasm and interest of the participating teachers, students, school administration, and parents of the Creative Arts Centre, Milton Williams School, the Calgary Board of Education. Their continued support and commitment to this endeavor is appreciated.

Note

This inquiry is not intended to be evaluative in any regard. The aim is to consider the significance of the aesthetic in such a school setting and how teachers create, maintain, and nurture aesthetic learning spaces in their classrooms.

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Book Reviews

Procedures of Power and Curriculum Change: Foucault and the Quest for Possibilities in Science Education. David W. Blades. New York: Peter Lang, 1997, 290 pages.

Reviewed by *Alan G. Ryan*
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If you have ever yearned for a worked example of postmodernism in action, this book is for you. David Blades has taken a significant educational topic—curriculum change—and by drawing on the ideas of Foucault, Heidegger, and others submitted it to a postmodern analysis. And the miracle of this book is that he has done it in a way that not only lays out clearly the basis of his analysis, but also offers the reader an accessible insight into the potential of postmodern discourse to contribute to meaningful change in education. This is a must-read for curriculum theorists, science educators, and anybody else who revels in the stimulation of new ideas lucidly explored.

Mabry (1997) made a useful distinction between what she calls *extreme or skeptical postmodernism* and *moderate or affirmative postmodernism.* Whereas the former position is pessimistic, anarchic, fatalistic, and nihilistic, the latter position "retains emphasis on the individual and unique, anguish regarding the exclusion and oppression of the different or marginal, and preference for intuitive interpretation and situated personal meanings over theory and grand explanation" (p. 7). Blades' work wrestles with the notions of extreme or skeptical postmodernism, but ultimately it comes to reflect its author's optimism by ending up securely in the camp of moderate or affirmative postmodernism.

The book evolved from his doctoral dissertation at the University of Alberta and was completed during his time at the University of Saskatchewan, where he and I were colleagues. It is structured like a piece of formal music. Themes, related but different, are first presented and then allowed to interact. These themes are then developed in several ways, some of which are touched by mystery, and finally the strands are brought together once again. Some of the sounds in the piece may be unfamiliar, but the composer goes out of his way to prepare us for dissonances and to lead us through the more intellectually difficult passages.

The first theme, the need for a Science-Technology-Society (STS) science curriculum for all high school students, is laid out in Chapter 1. The history of science education from the Sputnik era to the present day is given in considerable detail; this chapter provides a useful synthesis of curriculum developments in the area. The role of technical-rational curriculum making is

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emphasized and is taken to task as wave after wave of curricular initiatives fail to bring about meaningful change.

The second chapter develops this theme through using the Alberta experience in the late 1980s and early 1990s as an example of what can go wrong in a technical-rational curriculum development process. As Blades traces the initial enthusiasm and support for STS curricula, then describes how reactionary forces gather strength to oppose the initiative, and finally recounts with sadness how a flawed compromise is reached, we develop a real picture of what was transpiring. His own participation in the process adds a delicious spice to the account. This chapter could stand alone as a powerful case study of curriculum development in the real world.

The third chapter introduces the second theme of the work: a presentation of the intellectual purpose of postmodernism. With respect for the reader's probable unfamiliarity and even fear of postmodern philosophy, Blades takes us gently into the world of Foucault. He uses the device of remembering his own initial grappling with Foucault as his legitimation for starting us right at the beginning. After all, if the author admits initial confusion, then it must be all right for the reader to do likewise. Surprisingly painlessly, we are gradually drawn into Foucault's deconstruction and sophisticated analysis of power as the "active, continuous, forceful, anonymous entrapment and definition of being" (p. 101). Blades reviews the few available studies where Foucault's insights have been applied to educational research and shows how his work adds to these insights.

Chapters 4 and 5 constitute an extended allegory that proves to be the heart of the book. This allegory of a quest in the courtly sense of a search with noble purpose is Blades' attempt to describe in a postmodern way what happened in the Alberta curriculum development situation. He weaves together and develops the two themes introduced earlier to create a kingdom with its own geography and castes and uses that to explore the "procedures of power" that were operating in Alberta. The story takes a while to get off the ground, but on the whole it succeeds on the (at least) two levels it strives for: offering an example of postmodern writing in the field of curriculum and helping us to appreciate what postmodern analysis can contribute to our understanding of curriculum development. The device of the allegory allows Blades to move characters such as Foucault, Heidegger, and Nietzsche on and off his stage and to develop useful conversations with them and with others. Readers will probably wish that some of their favorite characters had been able to make an appearance too; I know I would have been interested to hear how Habermas would have reacted to the sections on communicating.

Postmodernism does not offer a recipe for how to bring about change. Indeed the idea is the antithesis of postmodernism. So as I read toward the end of the book, I was apprehensive that it might fizzle out with a metaphorical shrug of the shoulders. However, Blades emerges from his experiences, both the real-world ones in Alberta and the more intellectual ones in his created Kingdom, with his faith in the potency of postmodernism undimmed. In the final pages he writes of his conclusion at the end of his journey: "I knew that the challenge ahead was to remain constantly in a state of critique, but critique tempered with cheerfulness that comes from the realization that in the enor-

mity of the task of change one simply has to laugh. I had no particular strategy for change in the Kingdom, I could give no workshops on change.... [My challenge was] to return to the Kingdom and critique what is so that what might be may become possible" (p. 208). In these remarks he has captured perfectly both the potential and the self-imposed limitation of the moderate or affirmative brand of postmodernism: there may be no magic solution for how to "do change," but there are certainly useful ways to expand our understanding of how change comes about.

My reservations about this book are few. Chief among them is my disappointment that Blades did not choose to explore why high school STS curricula have proven so difficult to implement anywhere they have been attempted. I do not feel that it is a sufficient explanation of this failure to blame power structures and reactionary forces. After all, other upheavals have taken place in education, but nevertheless lasting change has been introduced. Whole language learning has been assailed by many of the same forces that brought down the Alberta curricula, and yet it has managed in one form or another to withstand the attacks and become an integral component of language teaching. The only group that as a body vigorously supports STS curricula is science educators. On the whole, high school teachers, industry scientists, and university scientists do not. We need to understand the reasons behind this dichotomy; it must be due to more than just the reactionary response of power elites.

On the technical side the book has more errors and grammatical slips than I would have expected from this publisher. In one particularly unfortunate paragraph that lists some literature devoted to warnings about science, Dr. Jekyll loses an "l," Mary Shelley loses an "e," and poor H.G. Wells has *The Time Machine* assigned to his near-namesake Orson! However, these lapses do not detract seriously from the impact of this book. They can be corrected in the second edition that I confidently predict will need to be printed of this outstanding work.

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Systemic Violence in Education: Promise Broken. Juanita Epp and Ailsa Watkinson (Editors). Albany, NY: State University of New York Press, 1997, 220 pages.

Reviewed by: *Heather Blair*
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Naming an experience is central to understanding, analyzing, and deconstructing it. "Systemic violence is any institutionalized practice or procedure that adversely impacts on disadvantaged individuals or groups by burdening them psychologically, culturally, spiritually, economically or physically. It includes practices and procedures that prevent students from learning, thus harming them" (p. 190). The editors of this collection have not only named systemic violence for us, they have presented the many faces of this penetratingly pervasive phenomenon and practice. They have engaged the reader in an exploration of the violence in our educational experiences, the gendered, racist and classist nature of this violence, and the relations of power that perpetuate these practices. The four parts of this book help us to conceptualize the sites of violence, the nature of their construction, and what they mean to us as teachers, teacher educators and feminists.

Opening Part I, "Systemic Violence in Administration Practices," Watkinson's chapter provides an explicit analysis of the levels of systemic violence, sexism, racism, and classism and elucidates these with concrete examples. As an alternative she provides suggestions for creating classrooms and schools that are inhabited by a feminized ethic. Watkinson's analysis makes the implicit explicit.

Epp's chapter on authority gives the reader a way to think about how authority is realized in schools as "power over" children by teachers and administrators. She suggests that "violence is a subtext of traditional authoritarian structures and traditional pedagogical methods" (p. 25). She presents an argument for a revision of the interpretation of authority in schools and posits the feminization of school administration as an important step in reversing the inequities. She suggests that the inherently sexist and violent practices in our schools be replaced with more inclusive pedagogies and practices.

Tite, in her chapter called "Who Knows? Who Cares? Schools and Coordinated Action on Child Abuse," describes the results of a study done with 336 teachers examining what they believe constitutes child abuse and what abuse is worth reporting. She discusses the embedded gendered stratification of schools, with women teachers primarily in elementary classrooms, and the implications of these gendered perspectives on what is recognized as abuse and what is done about it. She problematizes the systemic practices of response and intervention.

In Part II, "Systemic Violence in Pedagogical Practice," Whitty introduces the gendered nature of space in a kindergarten classroom. Her article "Opening Spaces: Examining the Blocks" provides an analysis of the "no girls in the

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blocks rule." This illuminating example of the genderedness of rules that are established by children in classrooms, often invisible to teachers, shows how classroom inequities and access to opportunities with boys in a privileged position can originate. Whitty raises many questions, challenges teachers to take on these issues in their own classrooms, and suggests that "equity pedagogy" is central to turning the gendered tables. This chapter reminds the reader of the inherently sexist foundations of coeducation, which without radical changes in classroom and school practice will perpetuate the existing societal power relations.

Wason-Ellam explores how violent and aggressive play of video game heroes is simulated by a young boy through his classroom discourse. She uncovers the multiple connections between the violent forms of this popular media genre and this child's talk and text and then asks what we can do as teachers. "Do we teach children to question the prevailing social practices of the video games in a sustained critical manner or do we preserve the hegemony of the consumer market?" (p. 89). She challenges teachers to take that step and to engage in dialogue recognizing these texts as sites of violence. Wason-Ellam's explicit methodological discussion is extremely helpful to the reader in understanding the complexity of the intersections between literacy and the violence in popular media.

Ndunda's chapter "Discourses and Silences in Classroom Space" presents a personal narrative account of her experience in Canada as a black woman, parent, and international graduate student. She warns us that underlying multicultural and even some emancipatory educational practices are inherently racist and classist ideologies. She discusses the tension invoked by any attempt to move from "a site of silence to a site of intervention." Many issues are raised in this chapter that deserve serious consideration if we are to eliminate the stigma of *other* from the practices in our classrooms and find ways to address the social, political, economic, and historical dimensions that constitute the construction of *other* inside the walls of our educational institutions.

The final chapter of Part II consists of paired papers. Monteath and Cooper's "Lethal Labels: Miseducative Discourse about Educative Experiences" provides examples of how the practices of identifying and labelling students is stigmatizing and discusses the construction of a stigma as violating the individual. Rossler's "The Other Side of Labelling" presents a parent's perspective on the usefulness of labels. She delineates for us the criteria for labelling to avoid violating the individual. The dilemma of these dichotomies is further evidence of the patriarchal practices inherent in schooling.

In Part III, "Systemic Violence, Women, and Teachers," the discussion is opened by an extremely thought-provoking piece by Lisa Jadwin. This chapter resonated powerfully with me as a new academic in an extremely patriarchal educational institution. Jadwin discusses the profound dilemma we are faced with as feminists when our feminist pedagogies are limited by the patriarchal positivistic evaluation and assessment practices of our institutions and by the economic powers that make authority as obvious to her students in the rural Maritimes as it is to mine in rural Alberta. In "The Family Romance and the Student-Centered Classroom" she describes how her relationship with students falls to discord when her students realize the contractions of authority.

Her practice of feminist pedagogy is brought into question, and her authority is undermined in relation to the institutional practices of grading and assessment. She delineates for the reader her own experience and the psychological burden of the gendered nature of authority.

Sexual harassment permeates our schools and involves students, teachers, administrators, and staff. The gendered nature of the harassment, including the gendered harassment of gay and lesbian youth, go unnoticed for the most part by school administrations. Richardson's chapter contributes to this discussion by explicating how female teachers are harassed by students and then not supported by their administrations. Richardson articulates how little is done other than minimal lip service to address the boys-will-be-boys perspective prevalent in schools and argues that the inequities will remain unless serious attention is paid to changing the policies and practices of school administration. Her chapter is concerned with "how power is exercised through the institutionalized effects of particular discourses that work to displace certain experiences of female teachers in the schools, so it is necessary to examine those discursive fields which are specific to that context" (pp. 141-142). The framework for harassment used in her analysis provides both depth and breadth to understanding the intricacies and systemic nature of these forms of violence.

Warren, in her chapter "Learning from the Learning Place," presents two case studies where sexual harassment concerns voiced by female students and faculty fall on deaf ears. Warren questions the leadership in institutions of higher learning when women are silenced and the discourse is virtually turned around on the victims. Sadly she laments that it appears that "systemic violence thus successfully inoculates psyches for another generation of acceptance of harassment" (p. 158). This chapter leaves the reader wondering if the "chilly climate" in Canadian postsecondary institutions can and will ever be thawed?

Ho, Webb, and Hughson, in their chapter "Systemic Violence: Linking Women's' Stories, Education and Abuse," suggest that as curriculum stands today the knowledge of some is privileged over others and in that denial of personal experience many are denied an education. They ask for curriculum that is inclusive and politicized. They suggest that "education could be used to problematize patriarchal relations of power and authority" (p. 175).

In Part IV, "Keeping Promise," Yuzicapi's article "Personal Reconstruction: When Systemic Violence Stops" describes her experiences as a child, student, educator, and educational leader and how institutionalized racism and sexism affected her life. In her journey as an Aboriginal woman into first the processes of learning in the traditional and contemporary Aboriginal world and then as a graduate student studying liberation pedagogies in a race and gender course, Yusicapi found new lenses with which to look at racism and sexism. Her pragmatic take on ways to address these issues is thoughtful and refreshing.

Watkinson and Epp, in the final chapter "Addressing Systemic Violence in Education," remind us that the promises of equity in Canadian society and schools have not been kept; rather, they have been insidiously eroded. In this final chapter Watkinson and Epp discuss the kinds of practices and policies that result in systemic violence. They draw on many examples from this collec-

tion to support their claims and challenge teachers and administrators to take on these issues.

This collection is a worthwhile read. It fits a niche in the literature in the field as it reflects the Canadian context. The diversity of voice among the authors and the candidacy and directness reflected in their encounters contributes to the strength of the book. This wide range of perspectives challenges any superficialities of discussion of violence and forces the reader to think through the complexities and many intersections of the ideologies undergirding Canadian schools and society.

Although there is some unevenness among the chapters, the editors have crafted a space to bring the pieces together and highlight the common threads. They contend that "all students are affected by systemic violence but it is more prevalent in the lives of females, gay and lesbian students, students who are racialized, have a disability or who are economically disadvantaged" (p. 192) as demonstrated throughout the texts. There are many important insights and reminders in this collection, and I believe it would be a valuable resource for any graduate class or research project team pursuing questions of violence, race, class, and gender in education.

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